3M DIGITAL WALL DISPLAY

Operator's Guide

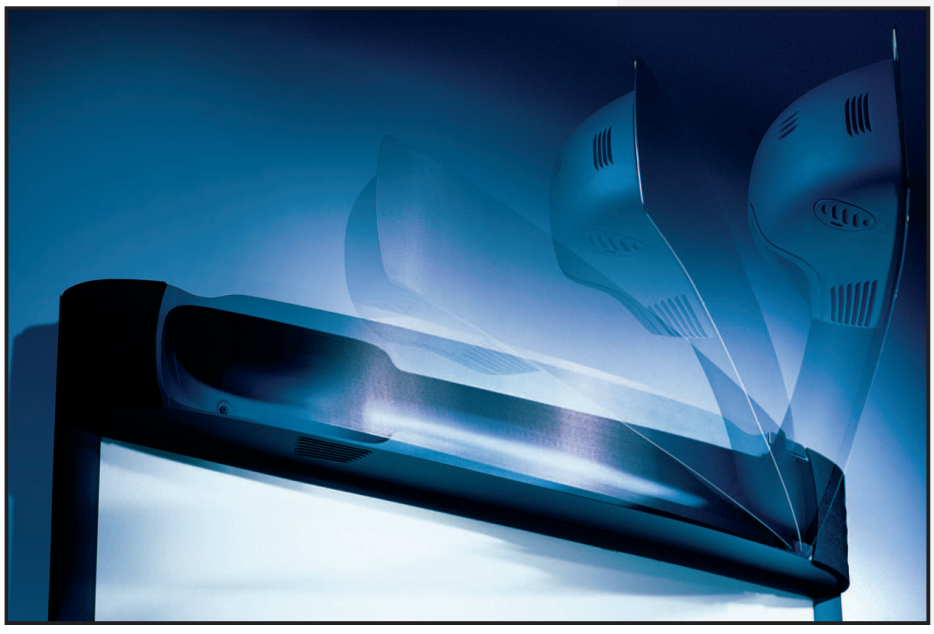
Touchboards
205 Westwood Ave, Long Branch, NJ 07740
Phone: 866-94 BOARDS (26273) / (732)-222-1511
Fax: (732)-222-7088 | E-mail: sales@touchboards.com

…interactive whiteboard

9200IW

…deluxe interactive whiteboard

9200IC



February 2005
78-6970-9381-9 Rev. B
Copyright © 2005, 3M.
All Rights Reserved.

(This page intentionally left blank for printed version)

Contents

Introduction

Thank You for Choosing 3M 5
Safety Information 5
Intended Use 5
Product Safety Label 9
Save These Instructions 9
Trademarks 9
Patents 10
Software and Copyright License Agreement 10
3M Digital WallDisplay Technical Support 10
FCC Statement—Class A 10
EEC Statement—Class A 10
Model Identification and Differences 11
Contents 12
Optional Accessories 12
What's Next? 12
Part Identification 13
3M Digital Wall Display Features 14

Installation and System Setup

Recommendation and Things to Consider Before Installing 15
Installing the Wall Bracket 16
Hanging the 3M Digital WallDisplay 17
System Setup 19

Operation

Startup 20
Shutdown 21

Remote Control Unit

Features 22
Forward Keypad 23
Rear Keypad 24
Installing or Replacing Batteries 25

Digital Markers and Eraser

Assembling Digital Markers 26
Assembling Digital Eraser 27

Menu System

Menu Navigation 28
Colorful—Bright Slider 28
Warm—Cool Slider 29
Volume Slider 29
Mute Menu Function 30
Input Select Menu 31

© 3M 2005. All Rights Reserved.

Reset All Menu 31
Image Adj Sub-Menu 32
Tools Sub-Menu 33

Using the 3M WallDisplay as a Copyboard

Installing eBeam Software on Your Computer 34
Installing the Software 34
Copyboard Mode (9200IC) 35
Projection Mode 35
Using Copyboard Mode (9200IC) 35
Using Projection Mode 36
The Interactive Stylus 37

Maintenance

General Maintenance 38
Lamp Usage 38
Onscreen Lamp Messages 38
Lamp Replacement 39
Resetting Lamp Hours 42
Replacing ProjectionScreen 43
Optical Engine Adjustment 44

Troubleshooting

Common Problems and Solutions 47
Onscreen Messages 48
eBeam Software 49
eBeam Hardware Detection/Use 49
Network Connection/Shared Meetings 50
Writing Data/Capture 51
EFI Meeting Applet 53
Background Images 54

Service Information

Replacement Parts 55
Optional Accessories 55
Ordering Parts or Getting Information 55

Appendix

3M™ Digital WallDisplay Specifications 56
Input/Output Signal Specifications 57
Computer Compatibility 57
Printer Compatibility 58

 © 3M 2005. All Rights Reserved.

Introduction

Thank You for Choosing 3M

Thank you for choosing 3M equipment. This product has been produced in accordance with 3M's highest quality and safety standards to ensure smooth and troublefree use in the years to come.

For optimum performance, please follow the operating instructions carefully. We hope you will enjoy using this high performance product in your meetings, presentations, and training sessions.

Safety Information

Please read, understand, and follow all safety information contained in these instructions prior to the installation and use of the 3M Digital Wall Display. Retain these instructions for future reference.

Intended Use

Before operating this machine, please read the entire manual thoroughly. The 3M Digital WallDisplay Systems are designed, built, and tested for use indoors, using 3M lamps, 3M mount hardware, and nominal local voltages.

The use of other replacement lamps, outdoor operation, or different voltages has not been tested and could damage the projector or peripheral equipment and/or create a potentially unsafe operating condition.

3M Digital WallDisplay Systems are designed to operate in a normal office environment.

- 16° to 29° C (60° to 85° F)
- 10 to 80% RH (without condensation)
- 0 to 1828 m (0 to 6,000 feet) above sea level

The ambient operating environment should be free of airborne smoke, grease, oil and other contaminants that can affect the operation or performance of the 3M Digital WallDisplay.

Use of this product in adverse conditions will void the product warranty.

Explanation of Signal Words and Symbols in Safety Labels and Instructions	
WARNING:	Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury and/or property damage.
CAUTION:	Indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury and/or property damage.
	Warning: HIGH VOLTAGE
	Caution: HIGH TEMPERATURE
	Warning; HIGH PRESSURE
	Attention: Refer to Safety Instructions in Guides

© 3M 2005. All Rights Reserved.

⚠ WARNING

To reduce the risk associated with hazardous voltage:

- Do not attempt to service the Wall Display other than performing routine lamp replacement. Service should only be performed by a 3M authorized service provider. Aside from the projection lamp assembly, there are no serviceable parts inside the unit.
- Switch power "OFF" and disconnect the plug from electrical outlet before replacing the lamp. Grasp plug and pull to disconnect.
- Replace the power cord if damaged.
- Always plug this product into a grounded outlet.
- Do not use in a wet environment.

To reduce the risk associated with hazardous voltage and fire:

- Switch power "OFF" and disconnect the plug from electrical outlet whenever the unit is not in use for an extended period of time.
- Use a properly rated extension cord. Consult an electrical professional if you have questions.

To reduce the risk associated with muscle strain and impact:

- Use only the 3M™ brand wall mounting hardware kit if wall mounting is desired.
- Strictly follow all installation instructions when installing or removing the Wall Display onto the wall or portable cart.
- Always use more than one person when installing or removing the Wall Display.
- Always keep cart and Wall Display stable.

To reduce the risks associated with glass dust falling from the projection arm into the eye:

- Do not look up towards the projection arm in the event of lamp breakage.

To reduce the risk associated with high temperature related to a hot lamp assembly:

- Wait at least 45 minutes for the lamp assembly to cool before replacing.

To reduce the risk associated with the release of high pressure related to a hot lamp:

- Wait at least 45 minutes for the lamp assembly to cool before replacing.

To reduce the risk associated with unexpected lamp rupture related hazards:

- Ventilate the area where the lamp rupture occurred. The lamp operates at high pressure and at high temperature.
- Have a 3M authorized service provider replace a ruptured lamp.
- Always handle the fragile lamp module with care.
- Wash your hands thoroughly if you come in contact with lamp debris.
- Replace the lamp module when the lamp replacement message appears.
- Never replace the lamp module with a previously used lamp module.

To reduce the risk associated with choking:

- Keep batteries away from children and pets.

To reduce the risk of associated with environmental contamination, due to mercury in the projection lamp:

- Don't throw the lamp cartridge in the trash. Dispose of the lamp cartridge in accordance with your respective governmental agencies for hazardous waste. For disposal information in the U.S., contact the Electronic Industries Alliance at www.lamprecycle.org. In Canada, contact the Electronic Product Stewardship Canada at www.wpsc.ca.

© 3M 2005. All Rights Reserved.

⚠ WARNING

To reduce the risk of environmental contamination due to lead based solder:

• Don't throw circuit boards in the trash. Dispose of circuit boards in accordance with your respective governmental agencies for hazardous waste.

To reduce the risk associated with radio interference:

• This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

To reduce the risks associated with hazards related to the use of alcohol based cleaners;

• Follow all instructions and recommendations in the Sanford Expo Whiteboard Cleaner Material Safety Data Sheet and product label.

⚠ CAUTION

To reduce the risk associated with tripping over cables:

• Position the product's power cord and data cable so that they will not be tripped over.

To reduce the risk associated with chemical leakage, hot battery surface, and battery rupture:

• Use only same type AAA alkaline batteries in remote control.

• Use only same type AA alkaline batteries in presentation pen.

• Use only same type CR2032 Lithium coin batteries in pens and eraser.

• Avoid fire and heat sources above 100° C.

• Do not short circuit batteries.

• Do not attempt to recharge batteries.

• Do not break or disassemble batteries.

• Avoid eye and skin contact, ingestion and inhalation of battery chemicals in the event of a ruptured or broken battery.

• Replace all batteries at the same time.

• Properly orient the plus (+) and minus (-) terminals of the batteries.

• Remove batteries when not used for an extended period of time.

To reduce the risks associated with impact from the projection arm and tripping over the legs of the portable cart:

• Do not use this Wall Display around unsupervised children.

• Do not allow children to hang onto the projection arm.

© 3M 2005. All Rights Reserved.

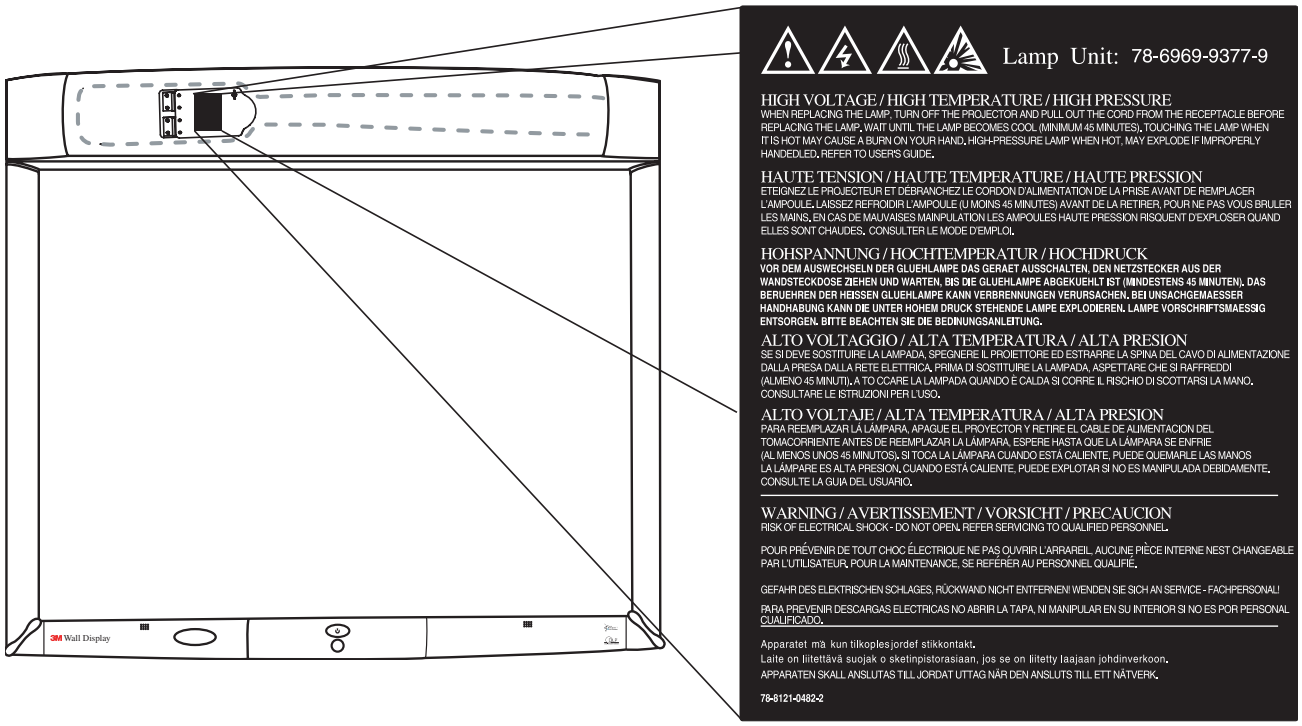
IMPORTANT NOTES

- In some countries, the voltage is not stable. This appliance is designed to operate within a range of 100~240 Vac. In these countries, it is recommended to install a power stabilizer unit.
- Do not manually open or close the projection arm while the 3M Digital Wall Display is in operation.
- Save the shipping box and packing materials in the event the 3M Digital WallDisplay should ever need to be moved.
- For other types of wall material (e.g. wood, concrete, concrete block) use mounting hardware that is properly rated for the weight of the unit and is intended for specific wall material.
- Most of the weight is at the projection head/speakers end of the 3M Digital WallDisplay.
- Use the enclosed cables to ensure image and audio quality. Substituting cables of lesser quality may result in poor image quality or audio noise.
- There is a 30-second reset period before the On/Off Button will function again. During this period, the On/Off Button will flash red.
- If the 3M Digital WallDisplay will not be moved or disconnected, leave the Master Power Switch on for your convenience.
- Do not turn off the Master Power Switch or unplug the power cord before pressing the On/Off Button. After the On/Off Button is pressed, the fan continues for approximately five minutes to cool the 3M Digital WallDisplay.
- The USB or serial mouse cable must be connected between the 3M Digital WallDisplay and the computer when using Mouse mode.
- Avoid excessive heat and humidity. Do not mix old and new batteries or different types of batteries.
- The eBeam Software detects the color of the marker sleeve, not the color of the marker inside it, unless specifically changed. Normal pressure on the marker as you write on the 3M Digital WallDisplay screen sends a “writing” signal in that sleeve’s designated color.
- The signal transmitter in the digital sleeve is located just behind the tip of the marker. Grasp the sleeve by the main barrel so your fingers will not block the signal.
- Choose New Page to save your work before you erase the board.
- You must hear or feel a distinctive snap to ensure facade is securely attached.
- Do not reset the lamp hours if the lamp cartridge was not changed. This can damage internal components.
- Before continuing with this adjustment, move the arm assembly up and down to relieve any stress and see if the arm will realign itself and project an aligned image.
- After making adjustments it may be necessary to perform the side to side adjustment to center the image properly.

© 3M 2005. All Rights Reserved.

Product Safety Label

The following safety label is used on or within the 3M Digital WallDisplay to alert you to this area requiring your attention.


Lamp Unit: 78-6969-9377-9
HIGH VOLTAGE / HIGH TEMPERATURE / HIGH PRESSURE
WHEN REPLACING THE LAMP, TURN OFF THE PROJECTOR AND PULL OUT THE CORD FROM THE RECEPTACLE BEFORE REPLACING THE LAMP. WAIT UNTIL THE LAMP BECOMES COOL (MINIMUM 45 MINUTES). TOUCHING THE LAMP WHEN IT IS HOT MAY CAUSE A BURN ON YOUR HAND. HIGH-PRESSURE LAMP WHEN HOT, MAY EXPLODE IF IMPROPERLY HANDEDLED. REFER TO USER'S GUIDE.
HAUTE TENSION / HAUTE TEMPERATURE / HAUTE PRESSION
ETEIGNEZ LE PROJECTEUR ET DÉBRANCHEZ LE CORDON D'ALIMENTATION DE LA PRISE AVANT DE REMPLACER L'AMPOULE. LAISSEZ REFROIDIR L'AMPOULE (U MOINS 45 MINUTES) AVANT DE LA RETIRER, POUR NE PAS VOUS BRÛLER LES MAINS. EN CAS DE MAUVAISES MAINPULATION LES AMPOULES HAUTE PRESSION RISQUENT D'EXPLOSER QUAND ELLES SONT CHAUDES. CONSULTER LE MODE D'EMPLOI.
HOHSPANNUNG / HOCHTEMPERATUR / HOCHDRUCK
VOR DEM AUSWECHSELN DER GLUEHLAMPE DAS GERAET AUSSCHALTEN, DEN NETZSTECKER AUS DER WANDSTECKDOSE ZIEHEN UND WARTEN, BIS DIE GLUEHLAMPE ABGEKUEHLT IST (MINDESTENS 45 MINUTEN). DAS BERUEHREN DER HEISSEN GLUEHLAMPE KANN VERBRENNUNGEN VERURSACHEN. BEI UNSACHGEMAESSER HANDHABUNG KANN DIE UNTER HOHEM DRUCK STEHENDE LAMPE EXPLODIEREN. LAMPE VORSCHRIFTSMAESSIG ENTSORGEN. BITTE BEACHTEN SIE DIE BEDINUNGSANLEITUNG.
ALTO VOLTAGGIO / ALTA TEMPERATURA / ALTA PRESION
SE SI DEVE SOSTITUIRE LA LAMPADA, SPEGNERE IL PROIETTORE ED ESTRARRE LA SPINA DEL CAVO DI ALIMENTAZIONE DALLA PRESA DALLA RETE ELETTRICA. PRIMA DI SOSTITUIRE LA LAMPADA, ASPETTARE CHE SI RAFFREDDI (ALMENO 45 MINUTI). A TO CCARE LA LAMPADA QUANDO È CALDA SI CORRE IL RISCHIO DI SCOTTARSI LA MANO. CONSULTARE LE ISTRUZIONI PER L'USO.
ALTO VOLTAJE / ALTA TEMPERATURA / ALTA PRESION
PARA REEMPLAZAR LA LÁMPARA, APAGUE EL PROYECTOR Y RETIRE EL CABLE DE ALIMENTACION DEL TOMACORRIENTE ANTES DE REEMPLAZAR LA LÁMPARA. ESPERE HASTA QUE LA LÁMPARA SE ENFRIE (AL MENOS UNOS 45 MINUTOS). SI TOCA LA LÁMPARA CUANDO ESTÁ CALIENTE, PUEDE QUEMARLE LAS MANOS LA LÁMPARE ES ALTA PRESION. CUANDO ESTÁ CALIENTE, PUEDE EXPLOTAR SI NO ES MANIPULADA DEBIDAMENTE. CONSULTE LA GUIA DEL USUARIO.
WARNING / AVERTISSEMENT / VORSICHT / PRECAUCION
RISK OF ELECTRICAL SHOCK - DO NOT OPEN. REFER SERVICING TO QUALIFIED PERSONNEL.
POUR PRÉVENIR DE TOUT CHOC ÉLECTRIQUE NE PAS OUVRIR L'ARRAREIL. AUCUNE PIÈCE INTERNE NEST CHANGEABLE PAR L'UTILISATEUR, POUR LA MAINTENANCE, SE REFÉRER AU PERSONNEL QUALIFIÉ.
GEFAHR DES ELEKTRISCHEN SCHLAGES, RÜCKWAND NICHT ENTFERNEN! WENDEN SIE SICH AN SERVICE - FACHPERSONAL!
PARA PREVENIR DESCARGAS ELECTRICAS NO ABRIR LA TAPA, NI MANIPULAR EN SU INTERIOR SI NO ES POR PERSONAL CUALIFICADO.
Apparatet må kun tilkoplesjordef stikkontakt.
Laite on liitettävä suojak o sketinpistorasiaan, jos se on liitetty laajaan johdinverkoon.
APPARATEN SKALL ANSLUTAS TILL JORDAT UTTAG NÄR DEN ANSLUTS TILL ETT NÄTVERK.
78-8121-0482-2
3M Wall Display

Save These Instructions

The information contained in this manual will help you operate and maintain your 3M Digital WallDisplay.

Trademarks

The 3M logo and 3M are registered trademarks of 3M Company. Vikuiti is a trademark of 3M Company.

Microsoft, Windows, Windows NT, Word, Excel, PowerPoint, Internet Explorer, and NetMeeting are either registered trademarks or trademarks of the Microsoft Corporation in the United States and/or other countries.

IBM is a registered trademark of International Business Machines Corporation.

Apple Macintosh and Apple PowerBook are registered trademarks of Apple Computer, Inc., registered in the U.S. and other countries.

Intel and Pentium are registered trademarks of Intel Corporation or its subsidiaries in the U.S. and other countries.

Digital Light Processing is a trademark or registered trademark of Texas Instruments.

eBeam, e-Beam, eBeam Mouse, eBeam Moderator, eBeam Software, ImagePort and eBeam Presenter are registered trademarks of Luidia, Inc.

Sun and Java are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.

UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

Palm is a trademark of Palm Computing, Inc. or its subsidiaries.

© 3M 2005. All Rights Reserved.

Netscape and the Netscape N and Ship's Wheel logos are registered trademarks of Netscape Communications Corporation in the U.S. and other countries. Navigator and Communicator are also trademarks of Netscape Communications Corporation and may be registered outside the U.S.

All other products are trademarks or registered trademarks of their respective companies.

Patents

3M Digital WallDisplay is protected by Utility Patent 6,179,426 and Design Patent D442,205.

Other patents pending.

Software and Copyright License Agreement

The software in this distribution is copyrighted and licensed by Luidia, Inc.

3M Digital WallDisplay Technical Support

- In U.S. or Canada: **1-800-328-1371**
- Web Site: **http://www.3M.com/walldisplay**

FCC Statement—Class A

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Instructions to Users
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide a reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Notice
This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

EEC Statement—Class A

This machine was tested against the 89/336/EEC (European Economic Community) for EMC (Electro Magnetic Compatibility) and fulfills these requirements.

Video Signal Cables
Double shielded coaxial cables (FCC shield cable) must be used, and the outer shield must be connected to the ground. If normal coaxial cables are used, the cable must be enclosed in metal pipes or in a similar way to reduce the interference noise radiation.

Video Inputs
The input signal amplitude must not exceed the specified level.

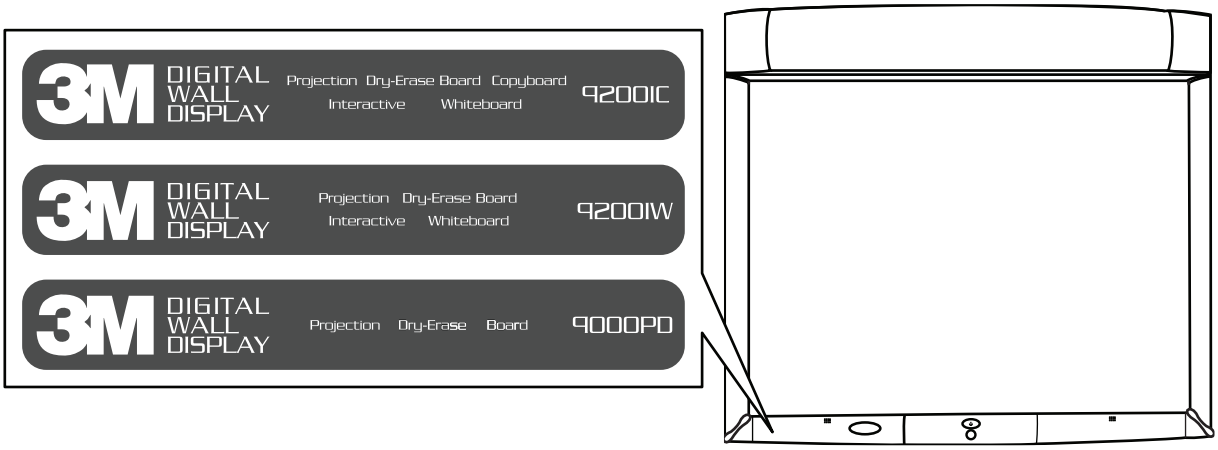
(See Appendix for these levels.)

 © 3M 2005. All Rights Reserved.

Model Identification and Differences

Identify Model

The nameplate, located behind the storage door, identifies the 3M Digital WallDisplay (DWD). Push the storage door to open it. The figure below shows the nameplate, and the table shows the model numbers and corresponding model names.



Model Number	Model Name
9000PD	3M Digital WallDisplay 9000PD for Projection Display
9200IC	3M Digital WallDisplay 9200IC with Interactive Collaboration
9200IW	3M Digital WallDisplay 9200IW with Interactive Whiteboard

Model Differences

Below is a table that identifies the differences between the 3M Digital WallDisplay models.

Model Number	Projection Screen	Copyboard*	Interactive Whiteboard**
9000PD	Easy Dry-Erase and Projection	NO	NO
9200IW		NO	YES
9200IC		YES	YES

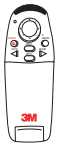
*The Copyboard feature allows you to print notes written on the 3M Digital WallDisplay to an attached printer. (PCL3 compatible printer required. See list in Appendix.)

**The Digital Whiteboard feature allows you to capture notes written on the 3M Digital WallDisplay with an attached computer or use the 3M Digital WallDisplay as an interactive display for a computer.

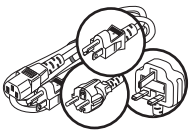
© 3M 2005. All Rights Reserved.

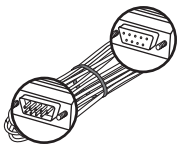
Contents

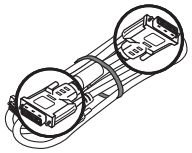
The 3M Digital WallDisplay (3M DWD) is shipped with the necessary cables required for standard VCR, PC, Macintosh or laptop computer connections. Carefully unpack and verify that you have all of the items shown below. If any are missing, please contact your place of purchase.

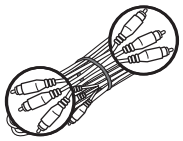

Remote Control (with batteries)

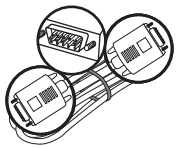
Mac adapter

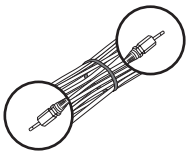

Power Cable (US, UK, Euro)

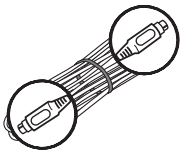

Serial Cable

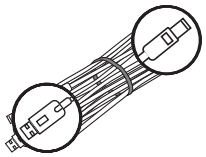

DVI-D Cable

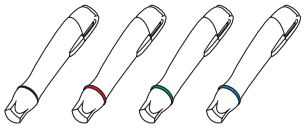

3-Conductor Video/Audio Cable

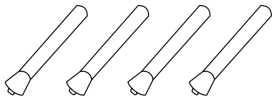

VGA Cable


PC Audio Cable


S-Video Cable


USB Cable


4 Pen Sleeves


Dry-Erase Markers

Digital Eraser

Operator's Guide

Product Registration Card

Lithium Ion Batteries (10)

High-Performance Cleaning Cloth

3M DWD for 9200IC Only

Interactive Stylus

Software CD-ROM

Optional Accessories

- Accessory Tray/Laptop Shelf
- Easy-Erase Screen
- Replacement Lamp Kit
- Extended Warranty
- Screen

Note: ***Save the shipping box and packing materials in the event the 3M Digital WallDisplay should ever need to be moved.***

What's Next?

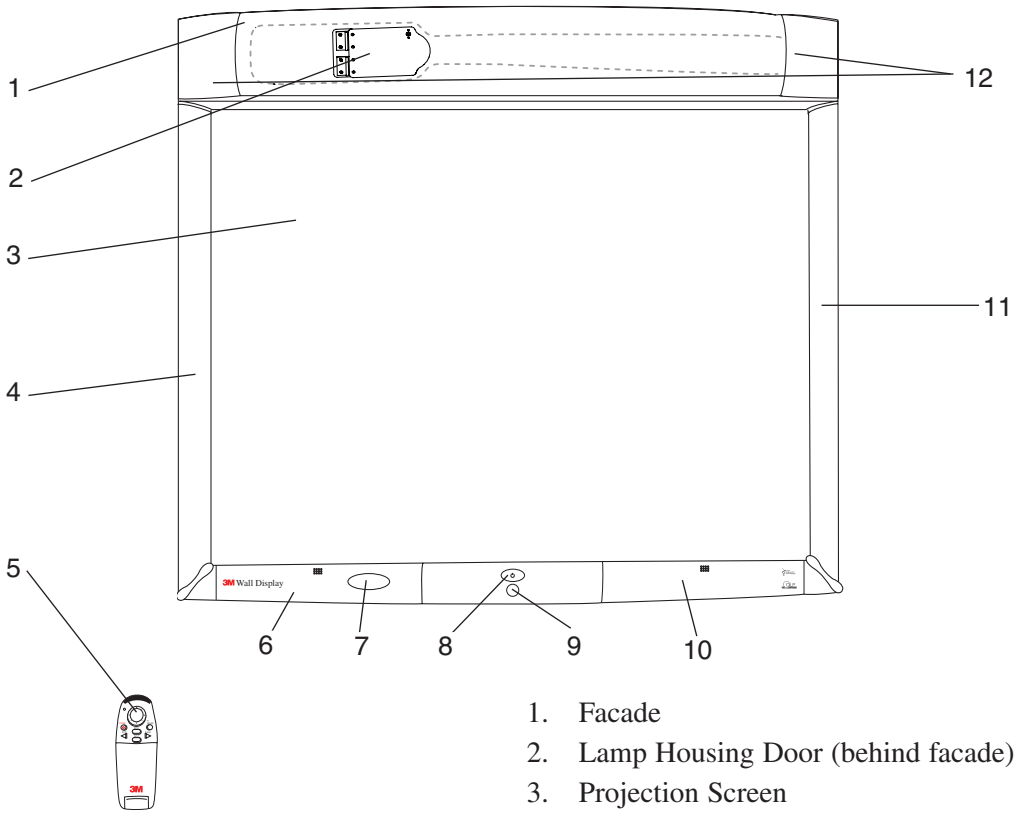
After the 3M Digital WallDisplay has been installed in your meeting room, you are ready to set it up.

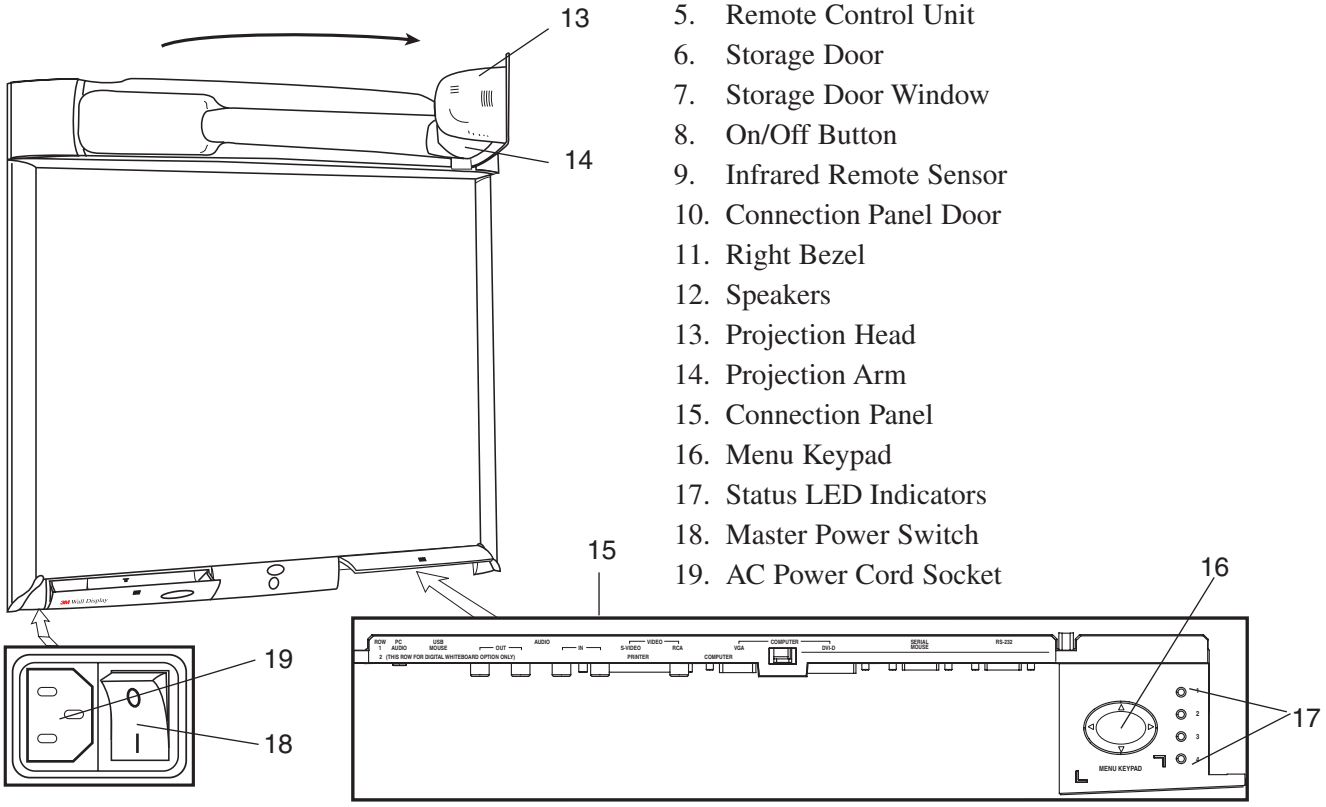
Please read this guide thoroughly before operating your new 3M Digital WallDisplay.

Be sure to check our web site **(www.3M.com/walldisplay)** regularly for updates and supplemental information.

© 3M 2005. All Rights Reserved.

Part Identification





1. Facade
2. Lamp Housing Door (behind facade)
3. Projection Screen
4. Left Bezel
5. Remote Control Unit
6. Storage Door
7. Storage Door Window
8. On/Off Button
9. Infrared Remote Sensor
10. Connection Panel Door
11. Right Bezel
12. Speakers
13. Projection Head
14. Projection Arm
15. Connection Panel
16. Menu Keypad
17. Status LED Indicators
18. Master Power Switch
19. AC Power Cord Socket

© 3M 2005. All Rights Reserved.

3M Digital Wall Display Features

The 3M Digital WallDisplay combines the following features into one sleek, sophisticated package.

- Full connectivity for computer or video presentations
- Large 60″ diagonal screen
- 4:3 screen aspect ratio matches business applications and viewing data
- Flat screen allows extra wide (up to 170°) viewing angles
- Projection arm position guarantees image is in focus every time
- Allows presenter to move without blocking image
- Built-in, powerful stereo speaker system
- Single button operation
- Hand-held remote control for most functions
- Print your meeting notes directly to a PCL3-compatible printer
- 3M Digital WallDisplay 9200IC and 9200IW unique features:
    - Capture notes in color and save them in various file formats instantly (JPEG, GIF, TIFF, HTML, PDF, vector PDF, EPS, BMP, WBD)
    - Turn the 3M Digital WallDisplay into an interactive computer screen by using the virtual mouse
    - Playback feature allows you to review all drawings on the board, including erased items
    - Share meeting notes in real time anywhere in the world via the Internet

© 3M 2005. All Rights Reserved.

Installation and System Setup

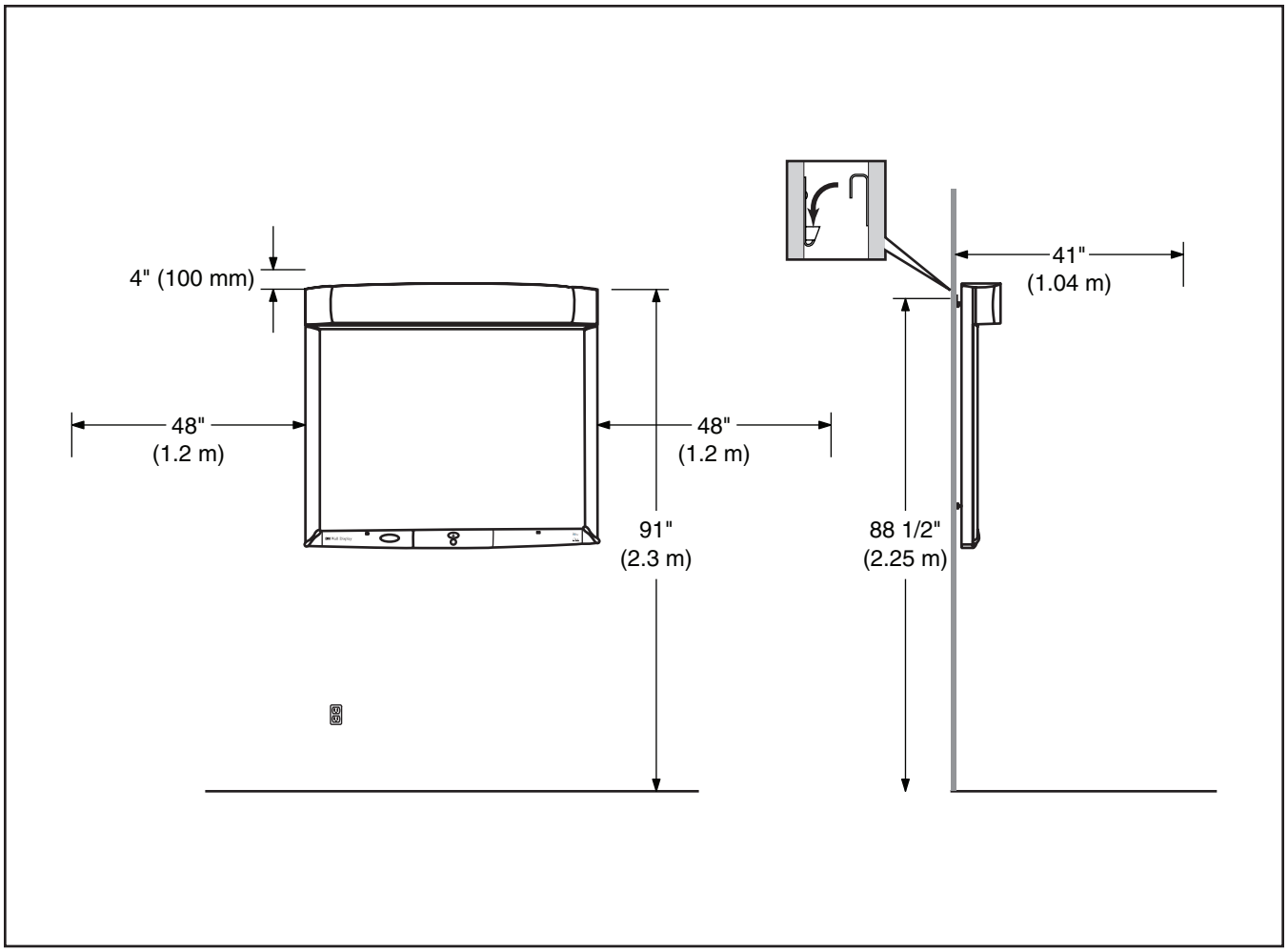
Recommendation and Things to Consider Before Installing

Location of Unit

- Place near AC outlet. The AC power connection is located on the lower-left corner of the 3M Digital WallDisplay (the unit). The AC power cord supplied with the unit is 6 feet (2 m) long.
- Service and screen replacement – The projection screen is removed from the side of the unit during replacement or service. For ease of replacement and access, position the unit 48 inches from the nearest obstruction or adjacent wall.
- Low-hanging lights – The projection arm extends 3 1/3 feet from the unit while in operation. Ensure that the projection arm will not come in contact with low-hanging light fixtures.

Air Ventilation

- Minimum clearance around the unit should be 4 inches.
- Air Vents – keep the air vents clear of objects and dust.

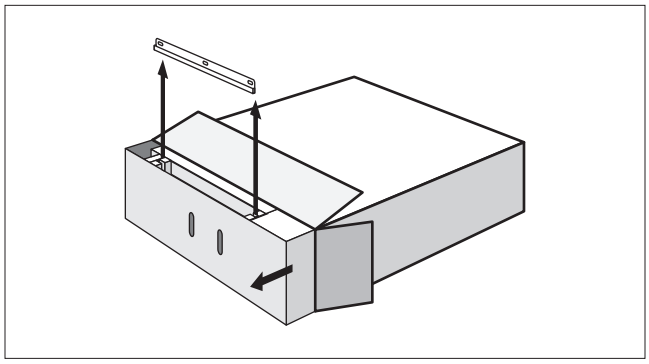


© 3M 2005. All Rights Reserved.

Installing the Wall Bracket

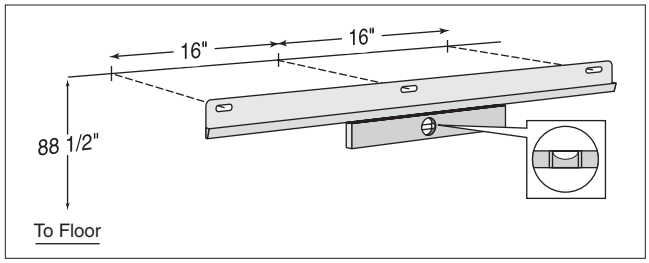
Unpacking Wall Bracket and Hardware

1. Place the shipping container face up on the floor.
2. Open the end of the shipping container.
3. Slide the shipping tray partially out the container.
4. Locate and Remove the wall bracket and hardware. The hardware is taped to the wall bracket.

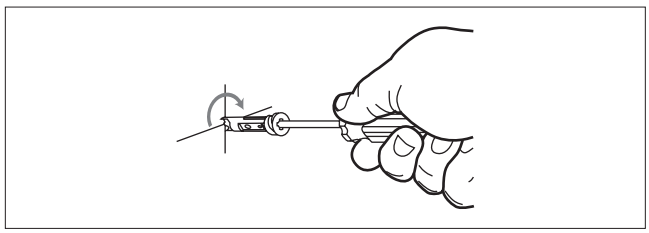


Installation for a Hollow Wall-Drywall

1. Determine the desired location of the unit. Locate all wall studs in area.
2. While holding the bracket in place, use a carpenter's level to ensure the proper level and then mark the three hole locations on the wall. Ensure that no studs are behind the hole locations.

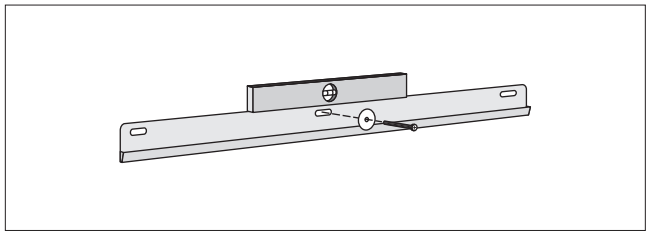


3. Using a Phillips screw driver, screw the supplied anchors into the wall until they are flush with the wall surface.



4. Align the wall bracket holes over the wall anchors and secure with the washer and anchor screws. Confirm that the wall bracket is level before tightening the screws.

Note: For other types of wall material (e.g. wood, concrete, concrete block) use mounting hardware that is properly rated for the weight of the unit and is intended for specific wall material.

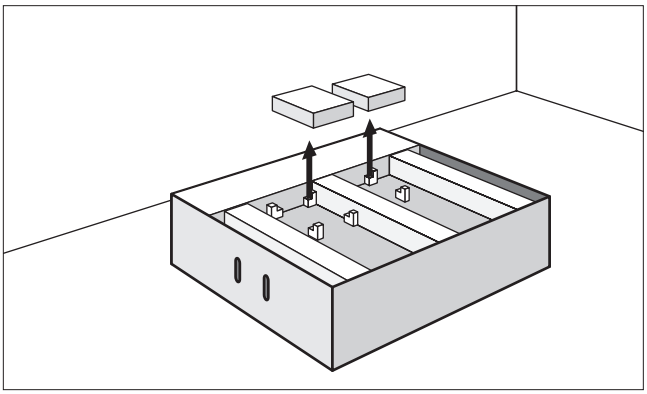


© 3M 2005. All Rights Reserved.

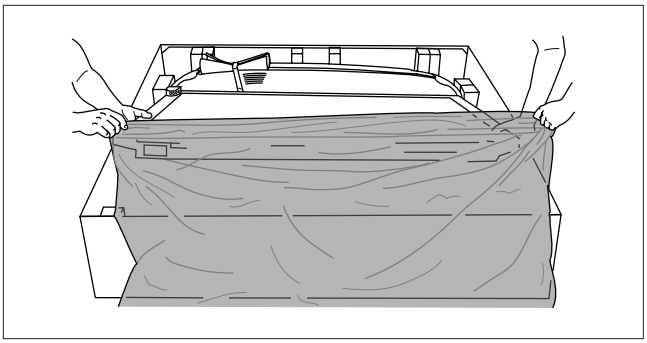
Hanging the 3M Digital WallDisplay

Unpacking the 3M Digital WallDisplay

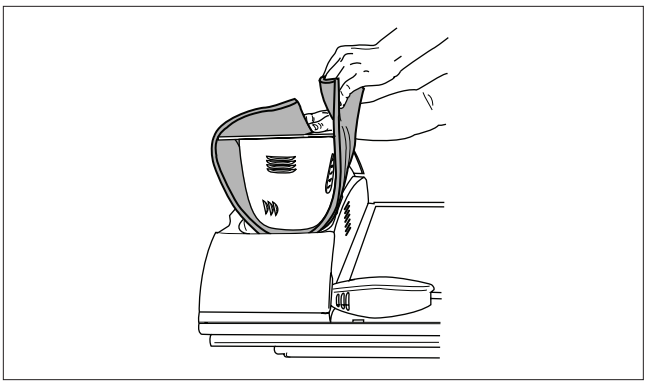
1. Place the shipping container face up on the floor and open the end previous opened.
2. Slide the shipping tray out of the shipping container.
3. Remove the accessory box(es) from the top support.
4. Remove the top support.



5. Remove the plastic bag from the 3M Digital WallDisplay by lifting the top of the unit and pushing the bag towards the bottom of the unit. Then set down the top.
6. Lift up the bottom and remove the bag completely.



7. Remove and set aside the tape holding the projection arm in place.
8. Remove the projection arm shipping foam, by opening the projection arm from the left.
9. Replace the tape to hold the projection arm in place while hanging on the wall.

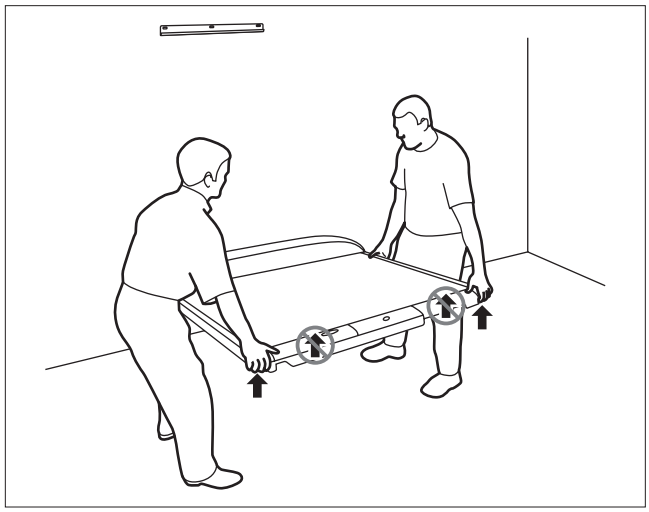


© 3M 2005. All Rights Reserved.

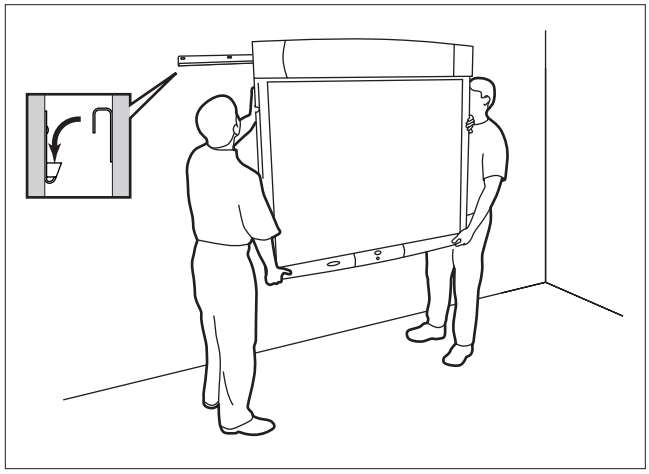
Hanging on the Wall

1. If possible, position the 3M Digital WallDisplay and shipping tray in front of the wall where the bracket is located. Position the unit so that the projection arm is closest to the wall.
2. Clear the path from the unit to the wall where it will be hanging.

Note: Most of the weight is at the projection head/ speakers end of the 3M Digital WallDisplay.



3. With one person holding each side of the unit, carefully lift it into position so that the bracket slot is above the wall bracket. Ensure that the unit is securely in place before releasing.
4. Remove the tape from the projection arm.



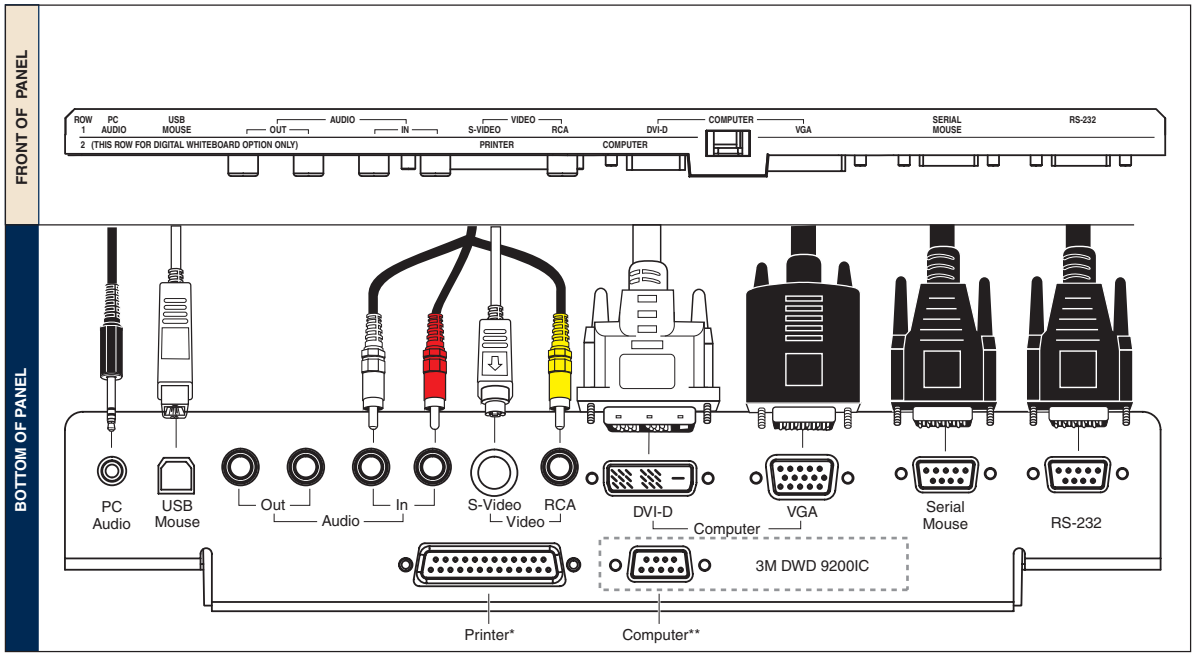
© 3M 2005. All Rights Reserved.

System Setup

It only takes a few minutes to connect the 3M Digital WallDisplay to your computer, VCR, DVD player, video conference unit, or other devices.

The connection panel is located underneath the bottom right corner of the 3M Digital WallDisplay, under the Connection Panel Door. Press and release door to access connection panel.

Note: ***Use the enclosed cables to ensure image and audio quality. Substituting cables of lesser quality may result in poor image quality or audio noise.***



PC Audio	Connects to the computer's audio output and provides audio for VGA and DVI-D (Digital Visual Interface - Digital only) inputs.
USB Mouse	Connects to the computer's USB port and provides wireless mouse control using the 3M Digital WallDisplay remote control Disk Pad button.
Audio Out	Connects to an external audio amplifier and provides audio from the active audio source.
Audio In	Connects to the audio output of a video device (e.g. VCR or DVD), and provides audio for both S-Video and RCA video inputs.
S-Video	Connects to an S-Video output signal.
RCA Video	Connects to a composite video device.
DVI-D	Connects to a computer that supports the DVI-D interface.
VGA	Connects to the VGA or monitor Out port of a computer.
Serial Mouse	Connects to a computer's 9-pin serial port and provides wireless mouse control using the 3M Digital WallDisplay remote control Disk Pad button.
RS-232	Connects to a control device's serial port and provides control of the 3M Digital WallDisplay using RS-232C protocol and the specified serial commands.

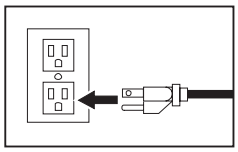
*Available only on 3M DWD 9200IC
**Available only on 3M DWD 9200IC and 9200IW

© 3M 2005. All Rights Reserved.

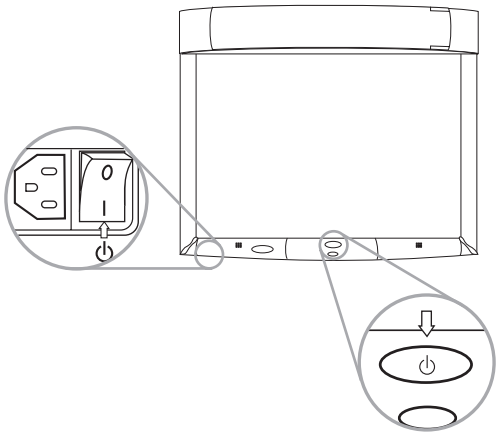
Operation

Startup

1. Plug power cord into wall socket.



2. Flip on the **Master Power Switch** beneath the lower left corner of the 3M Digital WallDisplay, near the 3M label. This should stay on at all times. Now the 3M Digital WallDisplay is in standby mode. The large oval **On/Off Button** will be backlit amber after several seconds.



3. Press the **On/Off Button** in the center of the lower front panel. The projection arm will extend outward from its housing at the top of the 3M Digital WallDisplay unit. Do not block its movement.
4. When the projection arm is fully extended, the lamp will turn on automatically. It will reach full illumination in approximately 60 seconds. The **On/Off Button** should then be backlit green.

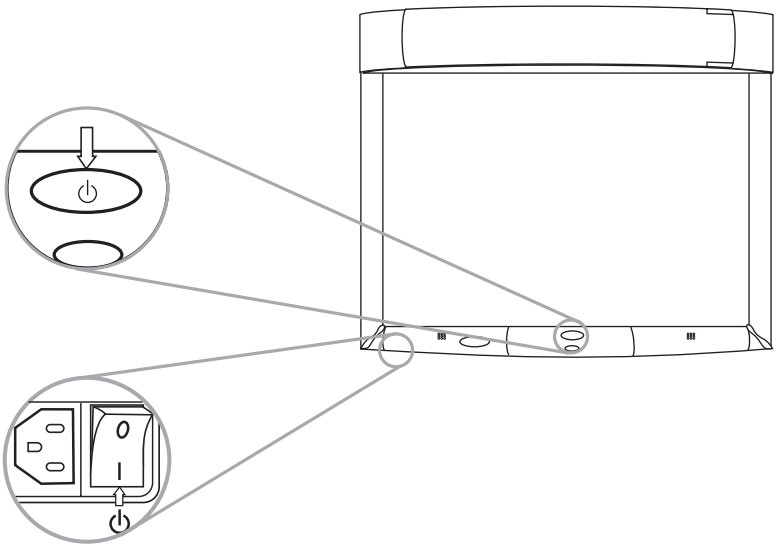
© 3M 2005. All Rights Reserved.

Shutdown

1. Press the **On/Off Button** on the bottom center panel of the 3M Digital WallDisplay unit.
2. The lamp will turn off and the projector arm will return to its housing. The **On/Off Button** will flash red as the arm closes.

   Note: ***There is a 30-second reset period before the* On/Off Button *will function again. During this period, the* On/Off Button *will flash red.***

   The fan will continue to run for approximately five minutes to cool the unit.



Note: ***If the 3M Digital WallDisplay will not be moved or disconnected, leave the* Master Power Switch *on for your convenience.***

Do not turn off the Master Power Switch or unplug the power cord before pressing the* On/Off Button*. After the* On/Off Button *is pressed, the fan continues for approximately five minutes to cool the 3M Digital WallDisplay.

© 3M 2005. All Rights Reserved.

Remote Control Unit

Features

The remote control sensor is on the front lower panel of the 3M Digital WallDisplay unit. The distance between the sensor and remote control must be shorter than 4 meters (13 feet).

The remote control unit has two keypads. The Forward keypad is above the flip-top cover. The Rear keypad is beneath the cover. The **Trigger Button** is underneath the front IR Sensor of the remote control unit and can be pressed easily with the index finger.

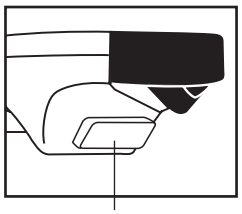
FORWARD KEYPAD

IR SENSOR
Transmits infrared signals to 3M Digital WallDisplay unit.

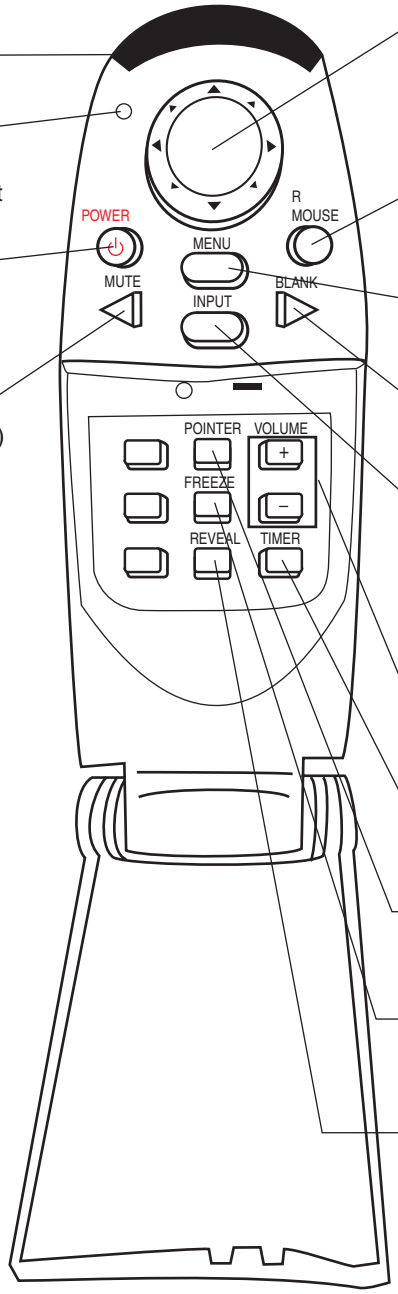
LED
Indicates that remote control unit is transmitting signal.

POWER
Press to turn 3M Digital WallDisplay on/off.

MUTE
Press to turn the audio (speaker) function on/off.



TRIGGER BUTTON
Press for left-mouse button functions.



DISK PAD
Press to control the computer's mouse, navigate the menu system, or control the Pointer or Reveal functions.

R MOUSE
Press for right-mouse-button function in mouse mode.

MENU
Press to display onscreen menu system.

BLANK
Press to turn the screen-blanking function on/off.

INPUT
Press to change source of input.

REAR KEYPAD

VOLUME
Press to adjust the speaker and Audio Out sound level.

TIMER
Press to turn on/off display of countdown timer.

POINTER
Press to turn the pointing function on/off.

FREEZE
Press to turn the still-mode function on/off.

REVEAL
Press to uncover part of the screen from top to bottom or from left to right.

© 3M 2005. All Rights Reserved.

Forward Keypad

Power
Press to turn the 3M Digital WallDisplay on/off. When power is turned on, the 3M Digital WallDisplay will automatically extend the projection arm and ignite the lamp.

Mute
Press to temporarily turn off the sound. Press again or press the **Volume +** or **-** buttons to restore sound.

Disk Pad
Press to:

- control the computer's mouse when using the Mouse function.
- select menu items and adjust values in the onscreen menu system.
- control the Pointer position while using the Pointer function.
- control the path of the Reveal function.

While using the onscreen menu system or Pointer function, the computer Mouse function is temporarily disabled. To regain computer mouse control, turn off the current function or the onscreen menu system.

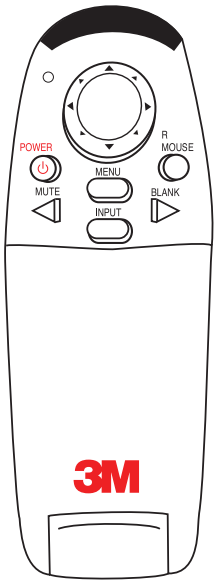
Note: ***The USB or serial mouse cable must be connected between the 3M Digital WallDisplay and the computer when using Mouse mode.***

R Mouse
Acts as the right-mouse button when the mouse function is active.

Menu
Press to display the onscreen menu system. Press again to conceal the onscreen menu system.

Blank
Press to make the screen go blank. Press again to return to normal display function.

Input
Press to change the source of input for 3M Digital WallDisplay. The **Input** button cycles between Computer, DVI, Composite Video (RCA jacks), and S-Video.



© 3M 2005. All Rights Reserved.

Rear Keypad

Pointer
Press to turn the pointing function on/off. A green dot will appear on the screen. The dot can be controlled by pressing the arrows on the **Disk Pad**.

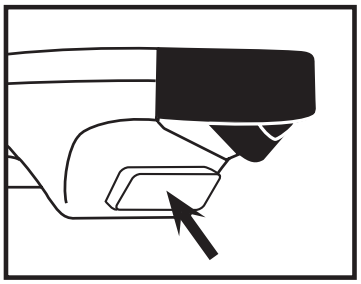
Volume
Press the **+** button to increase or the **-** button to decrease the speaker loudness level. When the audio is muted, the **Volume +** or **-** buttons will also cancel the Mute function.

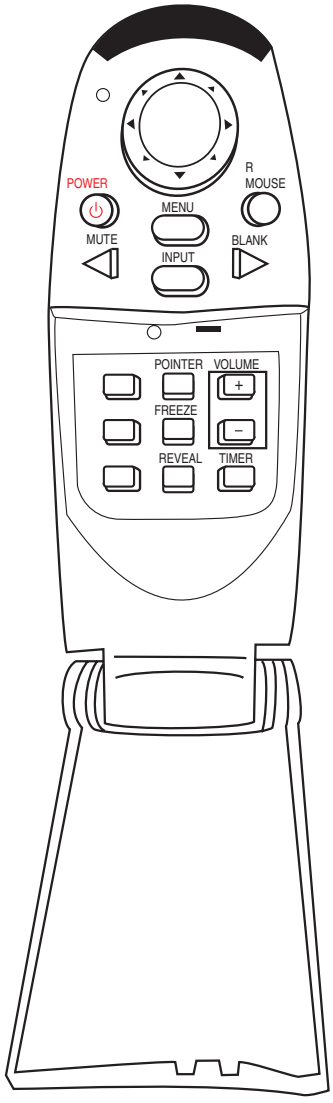
Timer
Press to turn the timing function on/off. The timer will display on the screen and begin to count down. To change the Timer value, refer to the **On Scrn Timer** sub-menu in the **Tools** menu.

Freeze
A moving image can be stilled or 'frozen' when the **Freeze** button is pressed. To release the Freeze function, press the **Freeze** button again.

Reveal
Press to turn the screen-reveal function on/off. Press the **Disk Pad** in the desired reveal direction (e.g. press down to reveal from the top down, etc.).

Trigger Button
On the underside of the remote control unit, beneath the IR sensor, press button for left-mouse-button functions.

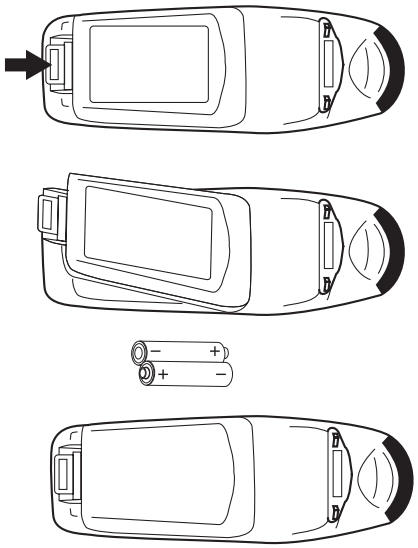




© 3M 2005. All Rights Reserved.

Installing or Replacing Batteries

1. Push and slide the battery compartment tab in the direction shown, then lift it off.
2. Install two AAA batteries as indicated by the diagram inside the compartment.
3. Snap the battery compartment cover back on.



Note: ***Avoid excessive heat and humidity.***
Do not mix old and new batteries or different types of batteries.

© 3M 2005. All Rights Reserved.

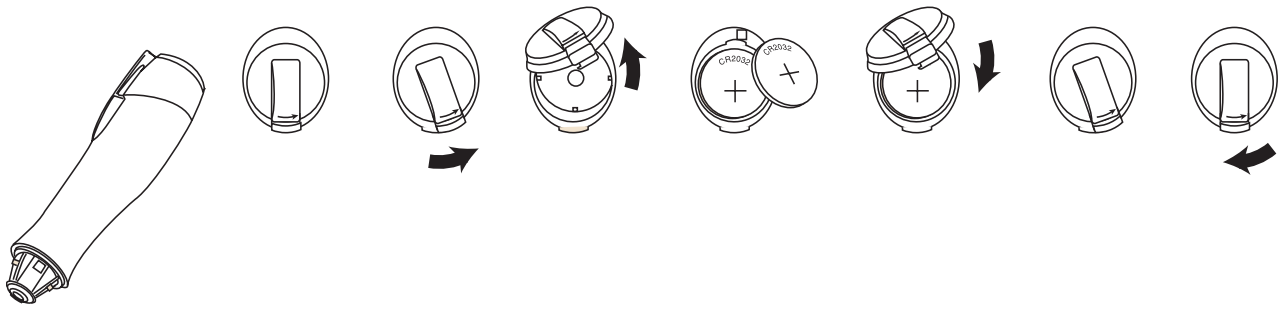
Digital Markers and Eraser

Assembling Digital Markers

The 3M Digital WallDisplay recognizes dry-erase marker writing by signalling the marker's exact location to the bezel. These signals are created and transmitted by small sensors near the ends of the battery-powered marker sleeves.

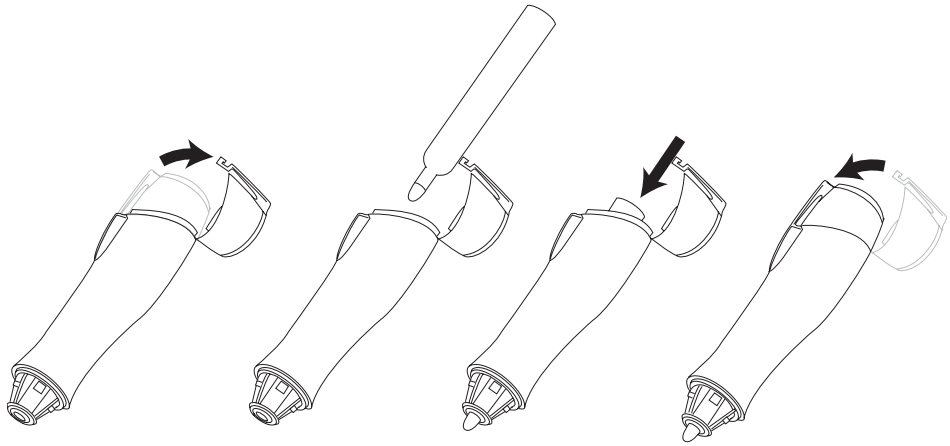
To prepare the digital markers:

1. Unscrew the end cap on the marker sleeve, turning it counterclockwise. Insert two coin batteries (CR2032), with the positive (+) side up. Screw the end cap back on, clockwise.
2. Press the ridged release button on the side of the marker sleeve, beneath the clip, to open the marker compartment.



3. Remove the cap from a bullet-tip dry-erase marker. Be sure the marker color matches the color ring on the marker sleeve. Insert the marker into the eBeam sleeve. Close the marker compartment.

Note: ***The eBeam Software detects the color of the marker sleeve, not the color of the marker inside it, unless specifically changed. Normal pressure on the marker as you write on the 3M Digital WallDisplay screen sends a "writing" signal in that sleeve's designated color.***



4. Cap the marker sleeve to keep the marker tip from drying out, just as you would with any other type of marker. The cap also prevents sending signals when not in use.
5. Repeat steps 1 through 4 for all other marker sleeves.

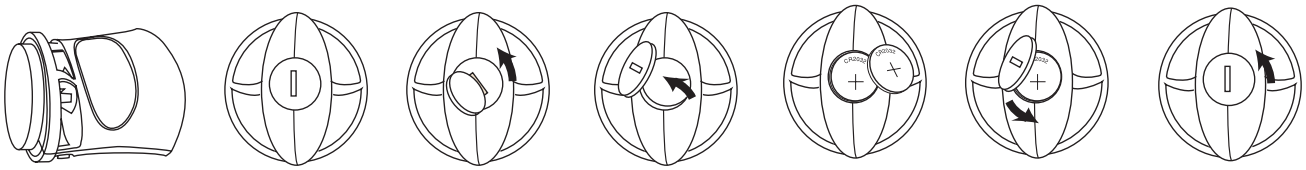
Note: ***The signal transmitter in the digital sleeve is located just behind the tip of the marker. Grasp the sleeve by the main barrel so your fingers will not block the signal.***

© 3M 2005. All Rights Reserved.

Assembling Digital Eraser

The digital eraser erases marker input by sending signals from the digital eraser in the same way as the digital markers. The eraser sends an “erase” signal when you press the felt eraser against the 3M Digital WallDisplay screen.

Remove the battery cover on the top of the digital eraser by twisting a coin counterclockwise in the slot. Insert two coin batteries (CR2032), with the positive (+) side up. Screw the cover back on.

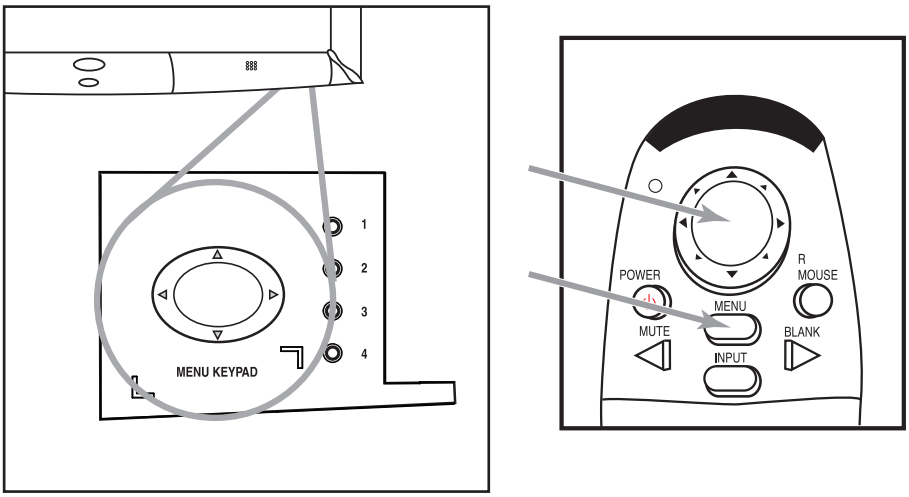


© 3M 2005. All Rights Reserved.

Menu System

Menu Navigation

Most adjustments and settings are available in the main menu and sub-menus. To navigate and make adjustments, use the 3M Digital WallDisplay's **Menu Keypad** button or the remote control's **Menu** and **Disk Pad** buttons.

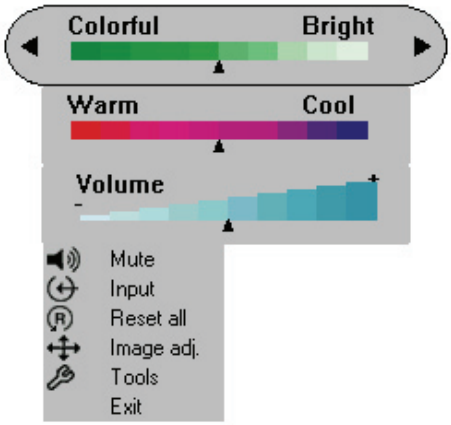


Colorful—Bright Slider

The **Colorful—Bright** slider adjusts the brightness, contrast, and color saturation levels simultaneously. Move the slider toward **Colorful** to achieve maximum color saturation and contrast. Move the slider toward **Bright** to achieve maximum brightness.

To adjust the **Colorful—Bright** slider:

1. Open the menu system by pressing the remote control **Menu** button or any arrow on the **Menu Keypad**.
2. Select the **Colorful—Bright** slider by pressing the up or down arrows on the remote control **Disk Pad** or **Menu Keypad**.
3. Move the slider by pressing the left or right arrow of the **Disk Pad** or **Menu Keypad**.
4. Close the menu system by pressing the **Menu** button or scrolling to **Exit** and selecting it with the right arrow of the **Menu Keypad**.



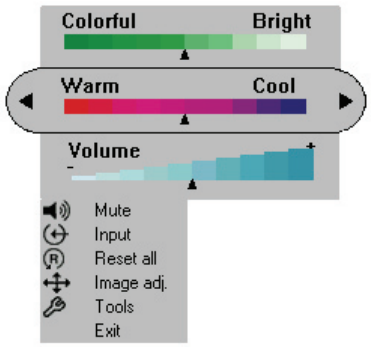
© 3M 2005. All Rights Reserved.

Warm—Cool Slider

The **Warm—Cool** slider adjusts the color temperature. Move the slider toward **Warm** to achieve warmer, more reddish images. Move the slider toward **Cool** to achieve cooler, more bluish images.

To adjust the **Warm—Cool** slider:

1. Open the menu system by pressing the remote control **Menu** button or any arrow on the **Menu Keypad**.
2. Select the **Warm—Cool** slider by pressing the up or down arrows on the remote control **Disk Pad** or **Menu Keypad**.
3. Move the slider by pressing the left or right arrow of the **Disk Pad** or **Menu Keypad**.
4. Close the menu system by pressing the **Menu** button or scrolling to **Exit** and selecting it with the right arrow of the **Menu Keypad**.

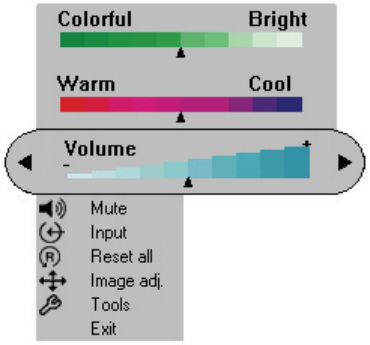


Volume Slider

The **Volume** slider adjusts the speaker and audio output sound level. Move the slider toward the right to increase the sound. Move the slider toward the left to decrease the sound.

To adjust the **Volume** slider:

1. Open the menu system by pressing the remote control **Menu** button or any arrow on the **Menu Keypad**.
2. Select the **Volume** slider by pressing the up or down arrows on the remote control **Disk Pad** or **Menu Keypad**.
3. Move the slider by pressing the left or right arrow of the **Disk Pad** or **Menu Keypad**.
4. Close the menu system by pressing the **Menu** button or scrolling to **Exit** and selecting it with the right arrow of the **Menu Keypad**.



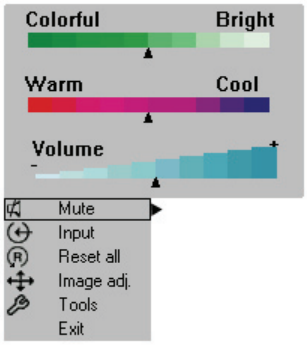
© 3M 2005. All Rights Reserved.

Mute Menu Function

The **Mute** menu function turns the sound on and off.

To turn the **Mute** menu function on:

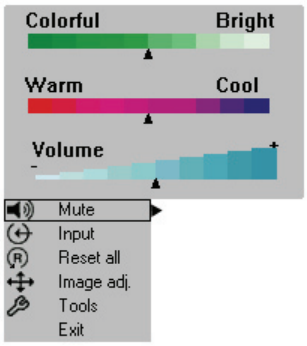
1. Open the menu system by pressing the remote control **Menu** button or any arrow on the **Menu Keypad**.
2. Select the **Mute** menu function by pressing the up or down arrows on the remote control **Disk Pad** or **Menu Keypad**.
3. Turn the **Mute** function on by pressing the left or right arrow of the **Disk Pad** or **Menu Keypad**. The sound will turn off.
4. Close the menu system by pressing the **Menu** button or scrolling to **Exit** and selecting it with the right arrow of the **Menu Keypad**.



Mute function ON

To turn the **Mute** menu function off:

1. Open the menu system by pressing the remote control **Menu** button or any arrow on the **Menu Keypad**.
2. Select the **Mute** menu function by pressing the up or down arrows on the remote control **Disk Pad** or **Menu Keypad**.
3. Turn the **Mute** function off by pressing the left or right arrow of the **Disk Pad** or **Menu Keypad**. The sound will turn on.
4. Close the menu system by pressing the **Menu** button or scrolling to **Exit** and selecting it with the right arrow of the **Menu Keypad**.



Mute function OFF

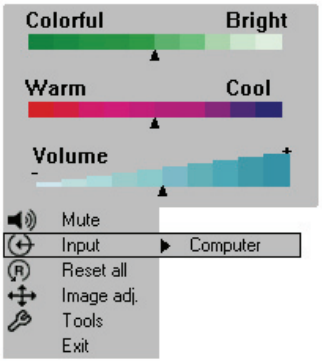
© 3M 2005. All Rights Reserved.

Input Select Menu

The **Input Select** menu defines the displayed video source. When **Input Select** menu is selected, the current video source is shown. The **Input** options are: Computer (VGA Input), DVI-D, S-Video, Comp. Video (RCA Video Input), and No Signal. An Input option is available to select when an active video source is connected to the 3M Digital WallDisplay input connection.

To set the **Input Select** menu:

1. Open the menu system by pressing the remote control **Menu** button or any arrow on the **Menu Keypad**.
2. Select the **Input Select** menu function by pressing the up or down arrows on the remote control **Disk Pad** or **Menu Keypad**.
3. Press the right arrow of the **Disk Pad** or **Menu Keypad** repeatedly until the desired input option is shown.
4. Activate the input option by pressing the left arrow of the **Disk Pad** or **Menu Keypad**.
5. Close the menu system by pressing the **Menu** button or scrolling to **Exit** and selecting it with the right arrow of the **Menu Keypad**.

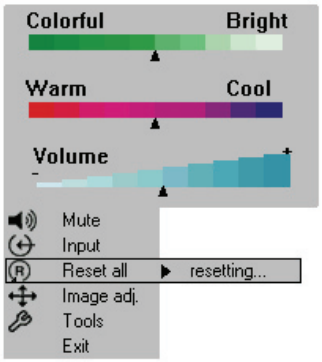


Reset All Menu

The **Reset All** menu function sets all menu settings to their default settings.

To turn the **Reset All** menu function on:

1. Open the menu system by pressing the remote control **Menu** button or any arrow on the **Menu Keypad**.
2. Select the **Reset All** menu function by pressing the up or down arrows on the remote control **Disk Pad** or **Menu Keypad**.
3. To activate the **Reset All** function, press the right arrow of the **Disk Pad** or **Menu Keypad**.
4. Close the menu system by pressing the **Menu** button or scrolling to **Exit** and selecting it with the right arrow of the **Menu Keypad**.



© 3M 2005. All Rights Reserved.

Image Adj Sub-Menu

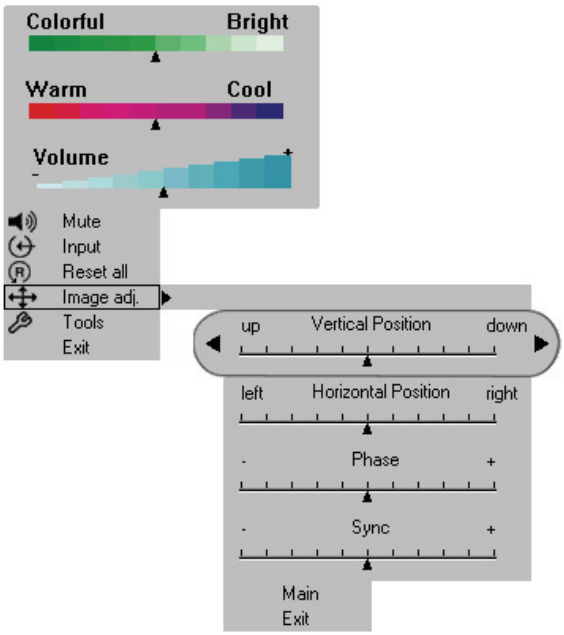
The **Image Adjustment** sub-menu adjusts the projected image settings for the VGA and DVI-D inputs. Use the **Vertical Position** and **Horizontal Position** sliders to reposition an image if portions are not visible. Use the **Phase** and **Sync** sliders to eliminate vertical banding and noise.

Vertical Position	Adjusts the vertical position of the projected image.
Horizontal Position	Adjusts the horizontal position of the projected image.
Phase	Adjusts the pixel sampling. Use this to reduce image noise and flicker.
Sync	Adjusts the expected pixel number in a single video line. Use this to eliminate banding.
Main	Returns to main menu.
Exit	Leaves the menu system.

To open the **Image Adj** submenu:

1. Open the menu system by pressing the remote control **Menu** button or any arrow on the **Menu Keypad**.
2. Select the **Image Adj** sub-menu by pressing the up or down arrows on the remote control **Disk Pad** or **Menu Keypad**.
3. To open the **Image Adj** sub-menu, press the right arrow of the **Disk Pad** or **Menu Keypad**.
4. Scroll to the desired slider and move it to the right or left as needed.
5. Close the menu system by pressing the **Menu** button or scrolling to **Exit** and selecting it with the left or right arrow of the **Menu Keypad**.

To return to the main menu, select **Main** and press the left or right arrow of the **Disk Pad** or **Menu Keypad**.



 © 3M 2005. All Rights Reserved.

Tools Sub-Menu

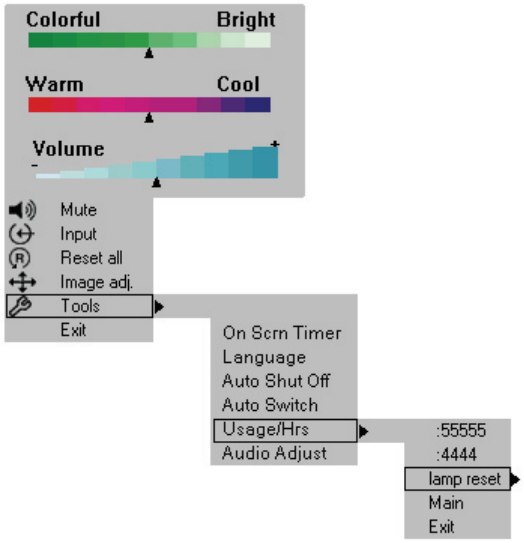
The **Tools** sub-menu provides access to the following settings and tools:

Onscreen Timer	Allows you to set a timer and display it onscreen.
Language	Selects which language to use for onscreen commands. (Default language is English.) It cycles between English, German, Spanish, Italian, and French.
Auto Shutoff	Will automatically turn off the 3M Digital WallDisplay within the time desired. (Default time is 0 minutes.)
Auto Switch	When an input source is lost or disconnected, Auto Switch automatically detects and switches to the next available input source. When Auto Switch is disabled, press the **Input** button on the remote control to select the next available input source.
Usage/Hrs	Displays and/or resets 3M Digital WallDisplay's and lamp's operating time, in number of hours.
Audio Adjust	Allows you to adjust the bass and treble.

To open the **Tools** sub-menu:

1. Open the menu system by pressing the remote control **Menu** button or any arrow on the **Menu Keypad**.
2. Select the **Tools** sub-menu by pressing the up or down arrows on the remote control **Disk Pad** or **Menu Keypad**.
3. To open the **Tools** sub-menu, press the right arrow of the **Disk Pad** or **Menu Keypad**.
4. Scroll to the desired item and adjust as needed.
5. Close the menu system by pressing the **Menu** button or scrolling to **Exit** and selecting it with the right arrow of the **Menu Keypad**.

To return to the main menu, select **Main** and press the left or right arrow of the **Disk Pad** or **Menu Keypad**.



© 3M 2005. All Rights Reserved.

Using the 3M WallDisplay as a Copyboard

Installing eBeam Software on Your Computer

Minimum Requirements

The eBeam Software will run on any computers that meet these minimum criteria:

PC

- Microsoft® Windows® compatible computer with Pentium® 100+ Mhz processor
- Windows 98, 2000, ME, XP and Windows NT 4.0 compatible (other platform users may view shared meetings via Java™ applet through Java-enabled Internet browser)
- 10 MB available hard drive space
- 256-color VGA or SVGA monitor
- CD-ROM drive or Internet connection for software installation
- One available serial port or USB port

Apple Macintosh

Although this help system does not discuss specific Macintosh help topics, there are versions of eBeam Software for Macintosh computers that meet the following requirements:

- Power Macintosh
- Mac OS 9.x with Macintosh Runtime for Java™ 2.2 or higher and 64 MB RAM, or
- Mac OS X 10.1 or higher
- 10 MB available hard drive space
- One available USB port

Installing the Software

Installing the eBeam Software for the 3M Digital WallDisplay is quick and easy. Just follow these steps below.

Install for PC Computer

1. Insert the CD labeled **3M Digital WallDisplay Software and Documentation** into the PC's CD-ROM drive.
2. The CD will automatically display a menu.
3. Select the **Install Software** button to go to the **Install Software** menu.
4. Select the **Install eBeam** button to start the software installation program.
5. The software installation program will guide you through the installation process.

Install for Apple™ Macintosh Computer

1. Insert the CD labeled **3M Digital WallDisplay Software and Documentation** into the CD-ROM drive of the computer.
2. After CD icon appears on your desktop, double-click the CD icon to open it in Finder.
3. Open the folder labeled **Software**.
4. Open the folder that corresponds to the Mac OS version on the Apple computer.
5. Double-click the **eBeam** icon to start the installation program.
6. The software installation program will guide you through the installation process.

© 3M 2005. All Rights Reserved.

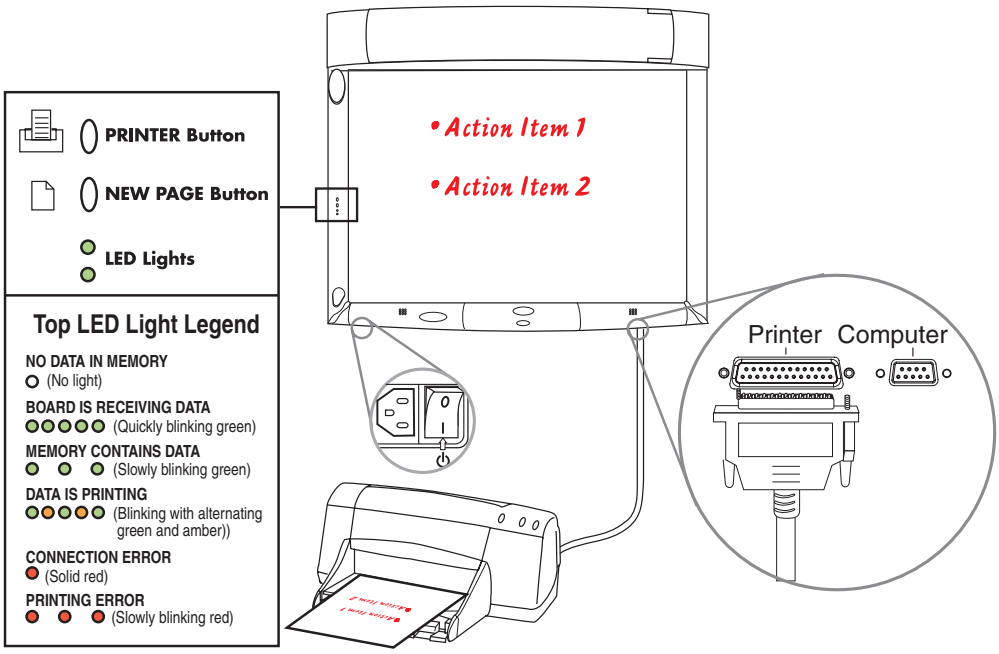
Copyboard Mode (9200IC)

This mode lets the 3M Digital WallDisplay unit capture all the data from the screen and print it to a printer connected directly to the 3M Digital WallDisplay. No computer is needed to run this system. This mode should be used without projection.

Projection Mode

The second way to use Whiteboard Display with a computer is in Projection mode. In this mode, your computer's desktop is projected on the 3M Digital WallDisplay screen and the Whiteboard system can be used as a touch screen. For this mode, use the eBeam Interactive Stylus instead of the dry-erase markers. The Interactive Stylus is used the same way a mouse is used on a PC (including the right-click function), but the **Print** and **Clear** buttons will have no effect.

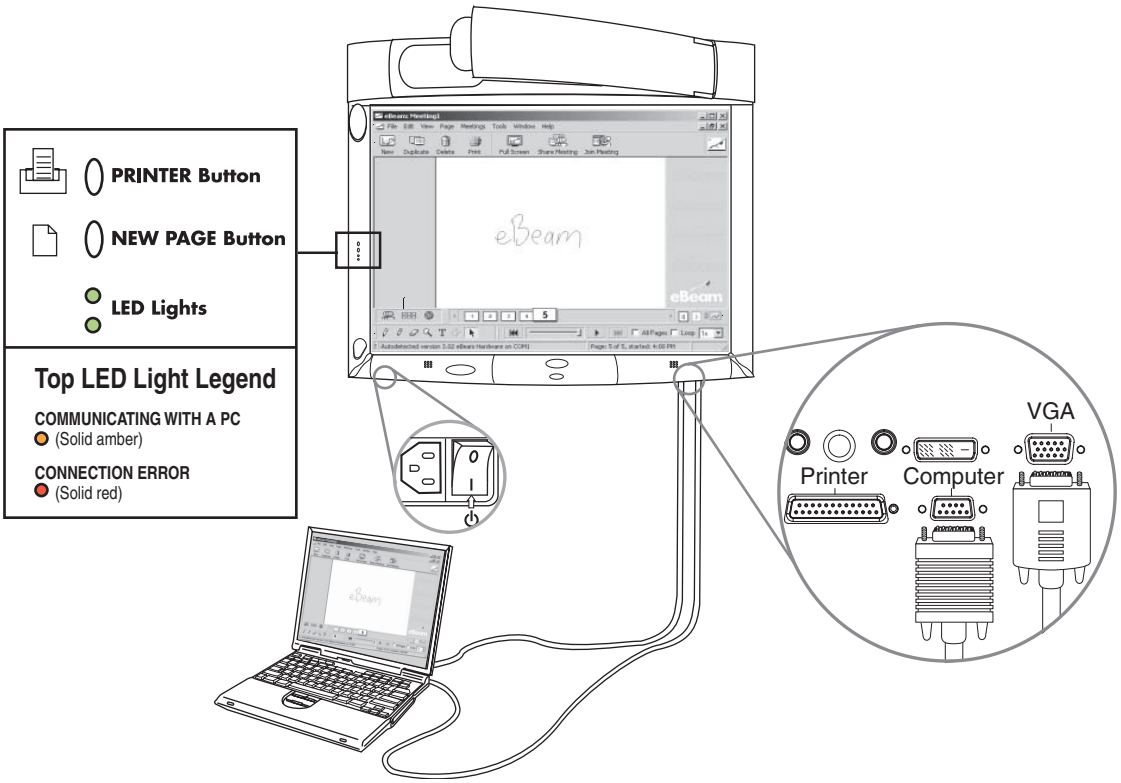
Using Copyboard Mode (9200IC)



1. Make sure the **Master Power Switch** is on and that the 3M Digital WallDisplay is plugged in. The **On/Off Button** does not need to be turned on.
2. Use the digital markers to write on the board. Use the digital eraser or cloth to erase any markings. A printer will need to be plugged in to the printer port for direct print option.
3. Press the top bezel button to print.
4. Press the bottom bezel button to clear the page and any information stored in the buffer.

© 3M 2005. All Rights Reserved.

Using Projection Mode



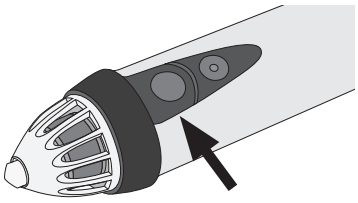
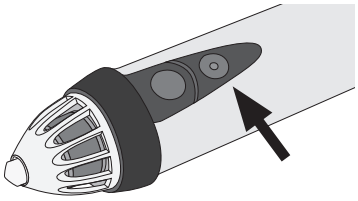
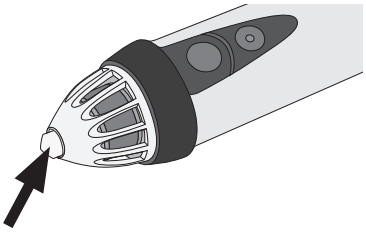
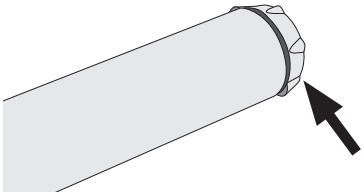
1. Turn on the 3M Digital WallDisplay unit and wait for image to appear on the screen.
2. Use the eBeam Interactive Stylus instead of a dry-erase marker.
3. From the **eBeam system tray** menu, choose **Use with Projector**.
4. From the **eBeam system tray** menu, choose **Calibrate Projection Area**.
5. Follow all on-screen directions from the calibration wizard.

© 3M 2005. All Rights Reserved.

The Interactive Stylus

The eBeam Interactive Stylus was created specifically for use with the 3M Digital WallDisplay. The Interactive Stylus behaves exactly like a mouse attached to your computer.

The following table shows the different components of the Interactive Stylus and what those components do.

Button A - Menu Button		Button A, the Menu Button is the equivalent of the right-click button on your mouse.
Button B - Show/Hide Interactive Tools Button		Button B, the Show/Hide Interactive Tools Button shows/hides the eBeam Interactive menu.
Pen Tip		The Pen Tip performs the same action as the left-click button on your mouse.
Battery Cap		The battery cap unscrews counter-clockwise to allow you to insert or replace the AA battery.

To learn more about the eBeam Software for the 3M Digital WallDisplay, please refer to the *eBeam Software for 3M Digital WallDisplay Operator's Guide*.

© 3M 2005. All Rights Reserved.

Maintenance

General Maintenance

For general cleaning of the screen and exterior of the 3M Digital WallDisplay, use a damp cloth or dry cleaning cloth such as the 3M High Performance Cleaning Cloth.

Standard dry-erase cleaners may be used on the dry-eraseable screens, such as Sanford® Expo® Whiteboard Cleaner. Do not use other spray cleaners or solvents on any part of the 3M Digital WallDisplay.

Lamp Usage

Use and Replacement of Lamp

The 3M Digital WallDisplay lamp has a normal operating time of approximately 1600 hours, called the lamp life. After the lamp has been operating for 1400 hours or longer, the following messages will appear on the screen for the first three minutes of operation. When this happens, turn off the 3M Digital WallDisplay and replace the lamp with a new one. Using an old lamp in the 3M Digital WallDisplay could cause a malfunction.

Onscreen Lamp Messages

PLEASE CHANGE THE LAMP
The lamp has been in use for 1400–1499 hours and needs to be changed. After replacing the lamp, reset the lamp timer.

THERE ARE (x) HOURS OF LAMP LIFE REMAINING
THE WALLDISPLAY WILL SHUT OFF IN 40 MINUTES
The lamp has been in use for 1500–1579 hours, and the power will turn off after 40 more minutes. After replacing the lamp, reset the lamp timer.

THERE ARE (x) HOURS OF LAMP LIFE REMAINING
THE WALLDISPLAY WILL SHUT OFF IN 5 MINUTES
The lamp has been in use for more than 1580 hours, and the power will automatically turn off after 5 minutes. After replacing the lamp, reset the lamp timer.

All of these messages will display for no longer than three minutes, but each will display whenever you turn the lamp on again, until the lamp is replaced.

For lamp-changing instructions, please refer to the next page.

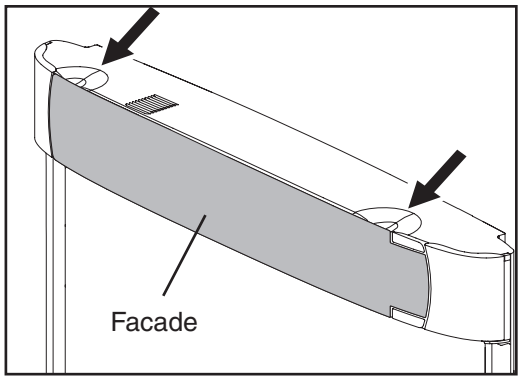
 © 3M 2005. All Rights Reserved.

Lamp Replacement

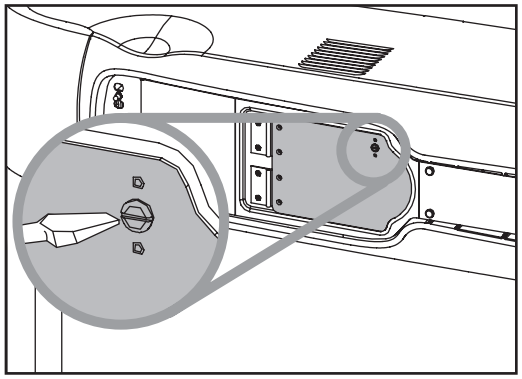
1. Turn the power off and disconnect the power cord from the outlet.

2. Allow approximately 45 minutes for the lamp to cool, if necessary.

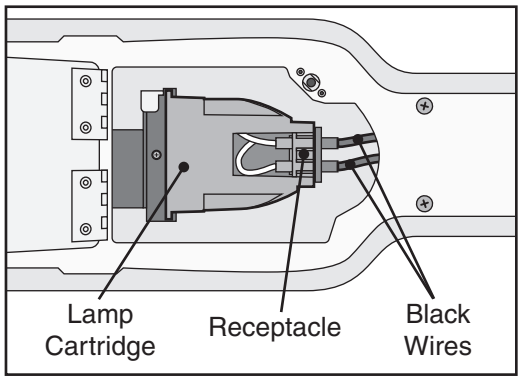
3. There are two indentations behind the top of the facade, near each end. Grasp facade plate at each indentation and pull out and down to remove plate.



4. Loosen the self-contained screw at the upper righthand corner of the lamp housing door with a standard screwdriver.

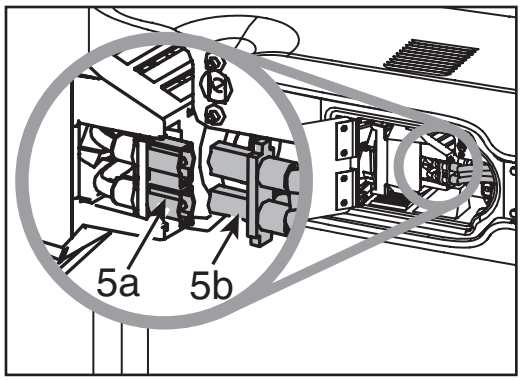


5. Two black wires connect to the lamp cartridge by a black plastic receptacle on the right side of the lamp cartridge.

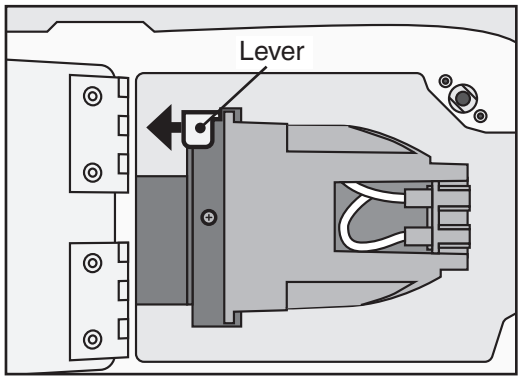


© 3M 2005. All Rights Reserved.

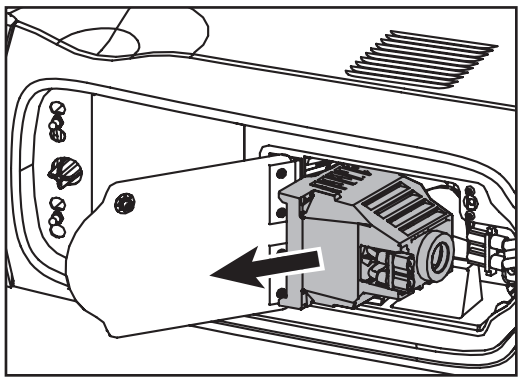
5a. Hold down this receptacle with your left thumb and (5b) pull connectors out of the receptacle with other hand.



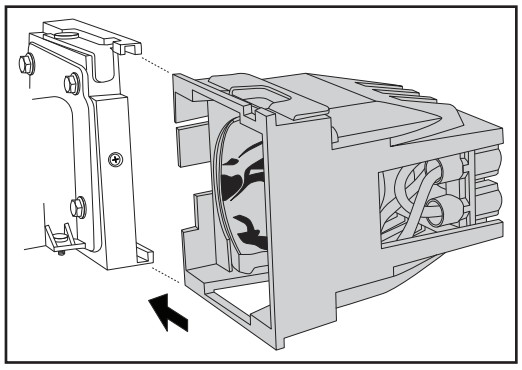
6. Open the latch by moving the metal lever to the left.



7. While holding the latch open, grasp the lamp cartridge and pull it straight out of the lamp compartment.

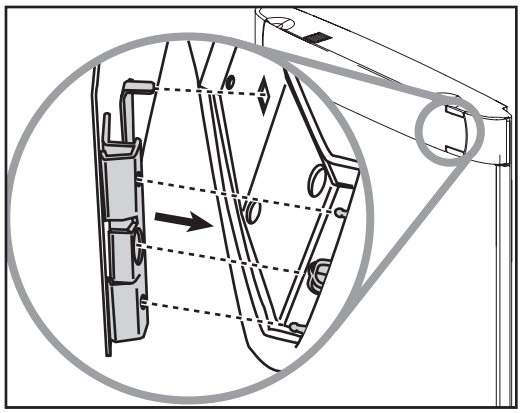


8. Holding the latch open, slide the new lamp cartridge into place.
9. Reconnect black wires to the receptacle.
10. Close the lamp housing door and tighten the screw.



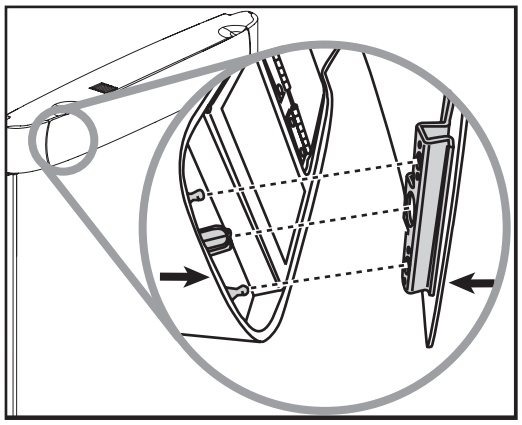
© 3M 2005. All Rights Reserved.

11. Align the slots and tabs of the right side of the facade and projection arm as shown, then snap firmly into place.



12. Align the slots and tabs of the left side of the facade and projection head as shown, then snap firmly into place.

    Note: You must hear or feel a distinctive snap to ensure facade is securely attached.



Whenever the lamp is replaced, please reset the total lamp operating time. (Refer to next page.)

© 3M 2005. All Rights Reserved.

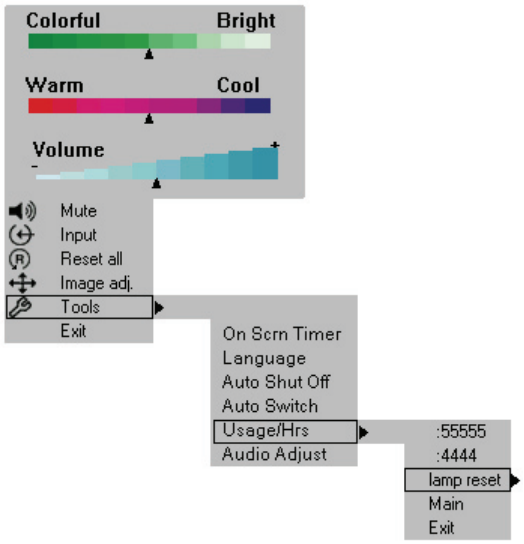
Resetting Lamp Hours

Please do the following within 10 minutes of turning power on after you replace the lamp.

1. Press the **Menu Keypad** or the **Menu** button on the remote control and use the **Disk Pad** to scroll down to the **Tools** menu.
2. In the **Tools** menu, scroll down the pop-up list to **Usage/Hrs** to display the total operating time of the lamp.
3. Select **Lamp Reset** from the next pop-up list.
4. Select **Exit**.

*Note: **Do not reset the lamp hours if the lamp cartridge was not changed. This can damage internal components.***

*Important Note: **This lamp contains mercury. Don't throw lamp cartridge in the trash. Dispose of the lamp cartridge in accordance with your respective governmental agencies for hazardous waste. For disposal information in the US, contact the Electronic Industries Alliance at www.lamprecycle.org. In Canada contact the Electronic Product Stewardship Canada at www.wpsc.ca.***

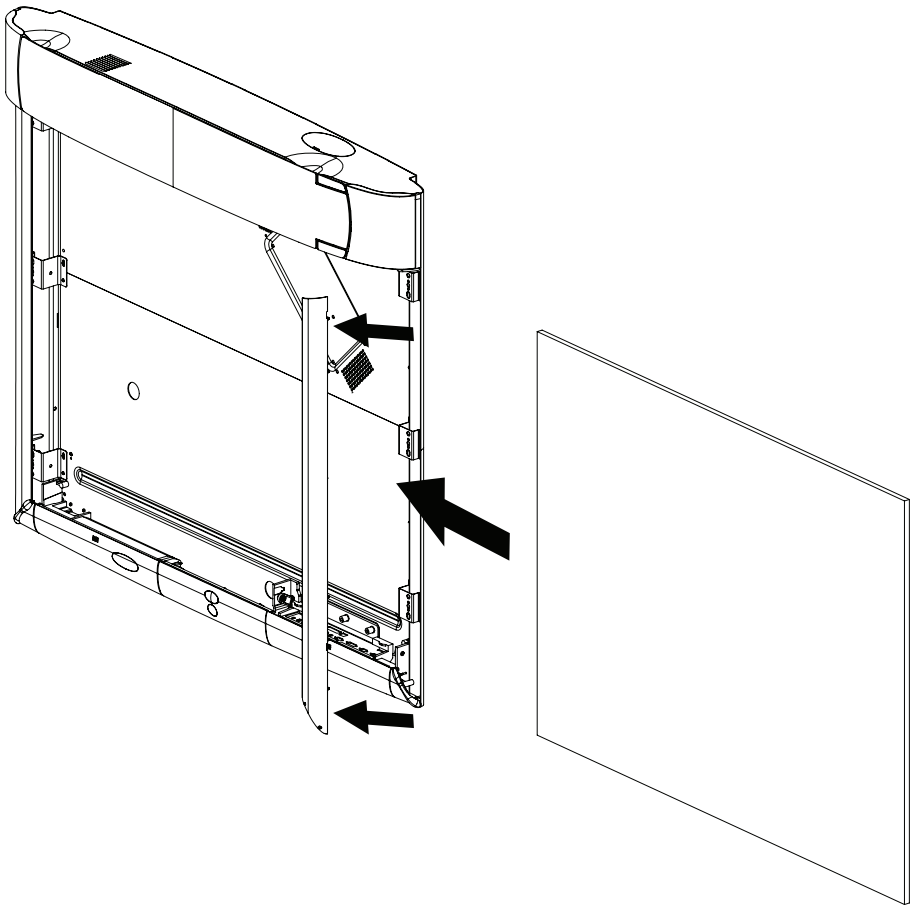


 © 3M 2005. All Rights Reserved.

Replacing ProjectionScreen

Replacing the 3M Digital WallDisplay screen is very simple.

1. Turn off the 3M Digital WallDisplay and disconnect the power cord from the wall outlet.
2. Remove the right and left side bezels. There are two ways to remove it. Either snap it off or insert a screwdriver into the notch located on the sides of each bezel, near the top. The bezel will easily snap on and off for screen replacement.
3. Slide the screen straight out of the open side. Be sure to allow approximately 4 feet of clear space on either side of the 3M Digital WallDisplay to do this.
4. Insert new screen into the open side and slide into place. Ensure that the screen is centered before replacing the side bezels. The bezels have ribs on the inside that could damage the screen if it is not centered.
5. Insert the bottom of the bezel first, then snap bezel back into place.



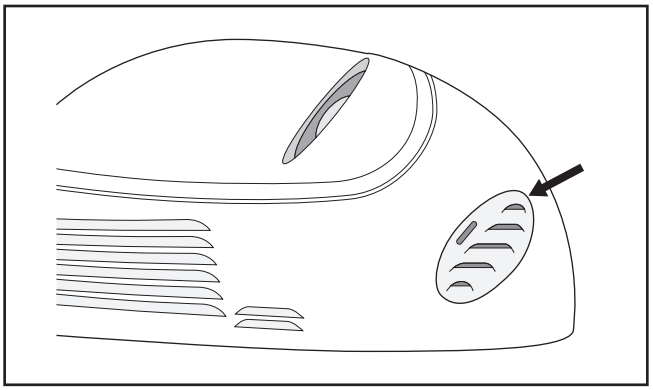
© 3M 2005. All Rights Reserved.

Optical Engine Adjustment

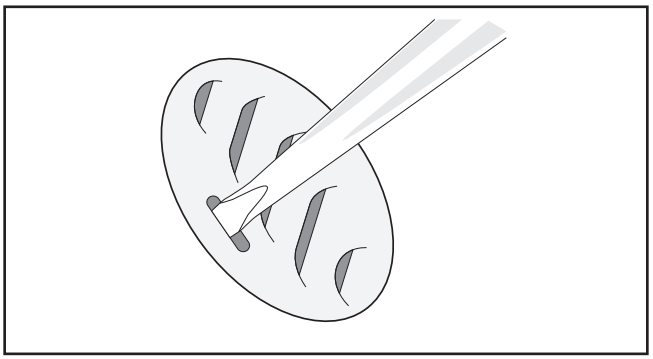
The optical engine needs to be aligned when the vertical or horizontal images do not cover the screen or are tilted.

Note: Before continuing with this adjustment, move the arm assembly up and down to relieve any stress and see if the arm will realign itself and project an aligned image.

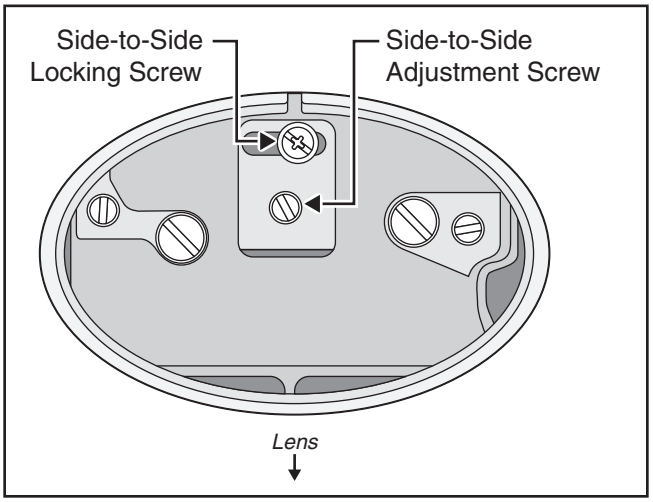
1. Locate the access door on the under side of the projection arm.



2. Slide the door release catch to the open position using the blade of a small screwdriver. Carefully lift outward to remove the optical engine door.

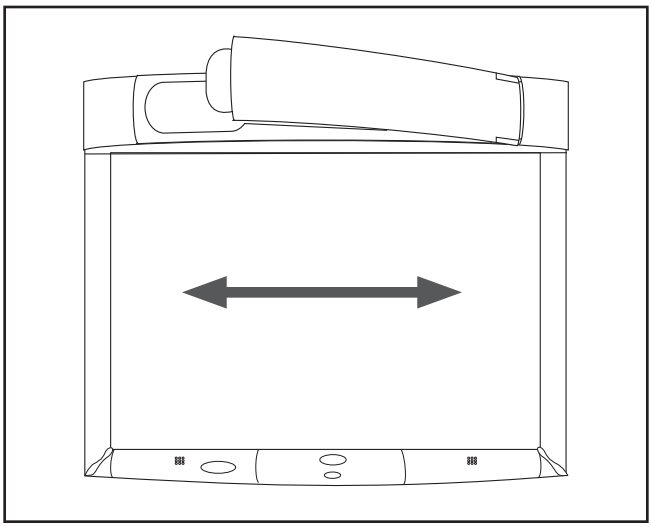


3. Locate adjustment screw for side to side screen adjustment. Locate locking screw for side to side adjustment.

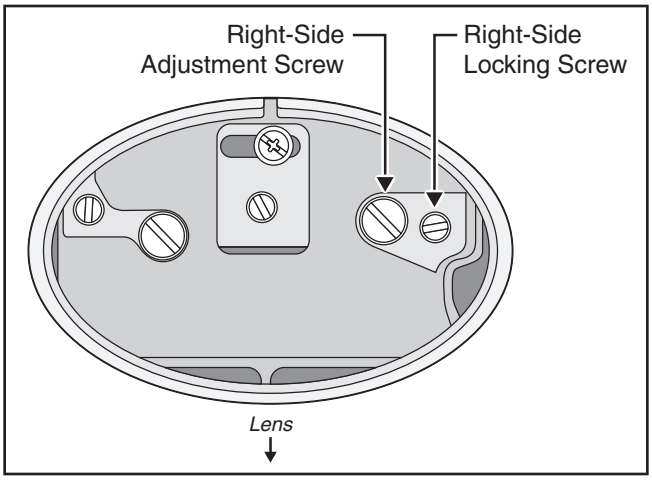


© 3M 2005. All Rights Reserved.

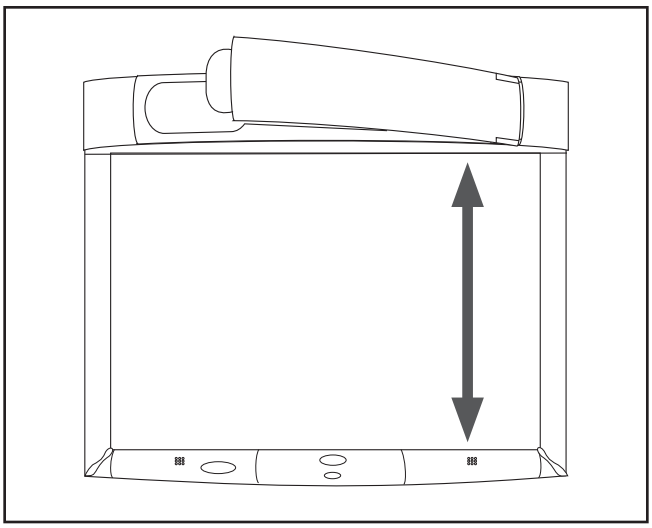
4. Loosen locking screw. Then use blade screwdriver on adjustment screw to move screen image from side to side if required. Tighten locking screw.



5. Locate adjustment screw for right side screen adjustment. Locate locking screw for right side adjustment.

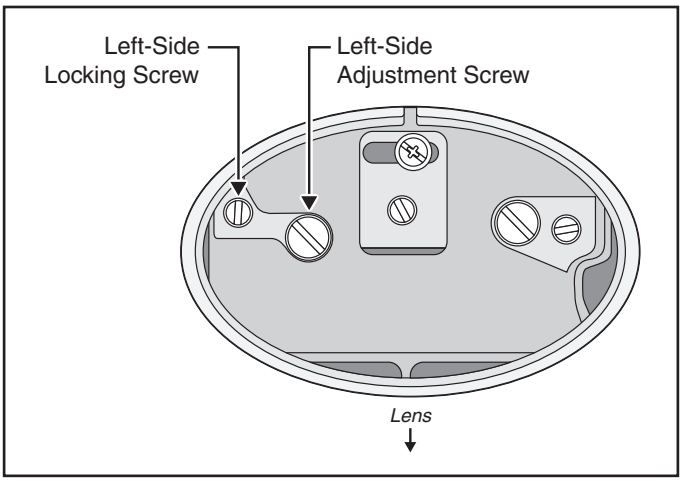


6. Loosen locking screw. Then use blade screwdriver on adjustment screw to move right side screen image up and down if required. Tighten locking screw.



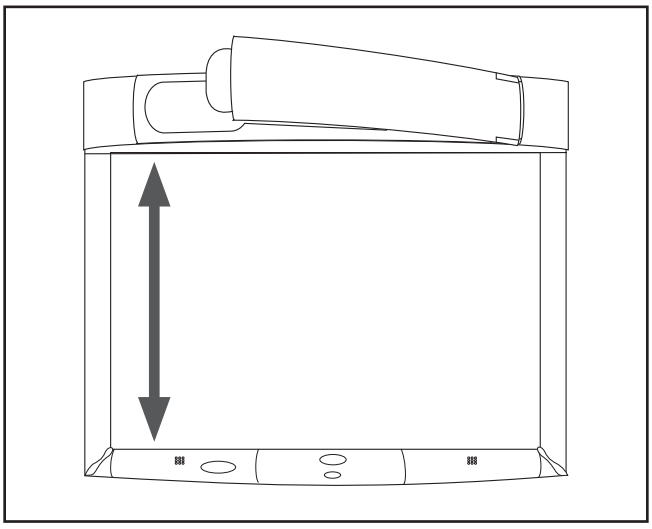
© 3M 2005. All Rights Reserved.

7. Locate adjustment screw for left side screen adjustment. Locate locking screw for left side adjustment.



8. Loosen locking screw. Then use blade screwdriver on adjustment screw to move left side screen image up and down if required. Tighten locking screw.

Note: After making adjustments it may be necessary to perform the side to side adjustment to center the image properly.



9. Replace the optical adjustment door.

© 3M 2005. All Rights Reserved.

Troubleshooting

Common Problems and Solutions

Symptom	Cause	Solution
Power cannot be turned on.	The power cord is disconnected.	Insert the power cord into an AC socket.
	The **Master Power Switch** is not turned on.	Turn on the **Master Power Switch.**
	The arm facade is not in place.	Make sure the arm facade is in place.
No picture or sound	The desired input source is not selected.	Press the remote control Input button to select a desired input source.
	The cables from the input source are not connected.	Connect the cable to correct input source.
	The input source is not turned on or not displaying an image. (e.g. If a notebook computer, the external monitor port is not turned on.)	Turn on input source
The lamp will not ignite or has turned off.	The internal temperature is too high.	Clear blocked ventilation holes.
	The lamp has reached maximum life or has prematurely failed.	Replace lamp.
The projection arm opens, then closes.	The lamp will not ignite.	Replace lamp.
Sound is heard with no picture.	The VGA/Video cables are not connected.	Connect the cables to the correct input source.
	The VGA/Video/Audio cables are connected to the wrong input.	
Picture is displayed with no sound	The VGA/Video cables are not connected.	Connect the cables to the correct input source.
	The audio cables are connected to the wrong input.	
	The volume is set to Minimum.	Turn up **Volume**.
	The **Mute** is on.	Turn off **Mute.**
Picture is dark.	The **Colorful—Bright** setting must be adjusted.	Adjust **Colorful—Bright** slider setting.
	The lamp needs to be replaced.	Replace lamp.

© 3M 2005. All Rights Reserved.

Common Problems and Solutions

Symptom	Cause	Solution
Desired input source cannot be detected.	The input source is not active. A signal must be present for the input to be selected.	Connect an active input source to unit.
	The input device (e.g. computer, VHS player, etc.) is not turned on.	Turn on input source
The remote control does not work	The remote control is not facing the remote control sensor.	Face the remote control toward the remote control sensor.
	The remote control is too far from the sensor.	Operate the remote control within 5 meters.
	An obstruction is between the remote control and the sensor.	Remove obstacle.
	The remote control's batteries are exhausted.	Replace batteries.
The menu system will not display.	The menu system will not display without an input source displayed.	Connect an active input source to unit.

Onscreen Messages

Message	Meaning
No input is detected	3M Digital WallDisplay is not receiving a signal from an external source. Check the cable connections and verify power is on and external source is working.
Please change the lamp	The lamp has 1400–1499 hours on it and needs to be changed.
There are (x) hours of lamp life remaining. The WallDisplay will shut off in 40 minutes	The lamp has 1500–1579 hours on it and needs to be changed.
There are (x) hours of lamp life remaining. The WallDisplay will shut off in 5 minutes	When the lamp has 1580 hours or more on it, the message will flash, and the power will turn off after 5 minutes.

© 3M 2005. All Rights Reserved.

eBeam Software

Troubleshooting provides solutions for known issues with the eBeam system. This section covers the Microsoft® Windows® versions of eBeam Software.

eBeam Hardware Detection/Use

Message	eBeam	Try the following:
"eBeam not found. Check connection cable and power supply." (This message might appear at application startup, or during the course of a meeting.)	Software	• First check the hardware for your system as described, and then click **Cancel**. • See **Unable to Detect the Hardware**. • Do you have more than one copy of eBeam Software installed on your computer? If so, the other copy may be running and have control of the port. Shut down the other copy. We recommend that old versions of eBeam Software be uninstalled from your computer. • Exit the eBeam Software's Meeting application and restart it. • Check that the eraser is not resting on the eraser pad. • If you are using a Serial-to-USB connector, follow the manufacturer's setup instructions.
Status Line Message. "Could not autodetect eBeam Hardware." or "Could not connect to eBeam Hardware on X." (where X is a port) (This message would most likely occur when you have selected **Cancel** from the **eBeam not found** message dialog box.)	Software	• See **"eBeam not found."** Check connection cable and power supply. (This message might appear at application startup or during the course of a meeting.) • See **Unable to Detect the Hardware.**
"The eBeam hardware is currently used by Projection mode. Would you like to use the eBeam hardware for this application?" (This message might appear at application startup or after selecting **Whiteboard Mode**.)	Software	• Message displayed if you are trying to open or switch to eBeam Software's Meeting application from Projection mode.

© 3M 2005. All Rights Reserved.

Network Connection/Shared Meetings

Problem	eBeam	Try the following:
To share a meeting, the eBeam Hardware must be connected and detected." (This message appears when you choose **Shared Meeting**.)	Software	• To serve as the meeting host, your computer must be attached to the eBeam Hardware. See **Hosting/ Sharing a Meeting**.
Unable to share or join a meeting over the EFI meeting server.	Software	• If you are attempting to share a meeting, make sure that you have the eBeam Hardware connected. See **Hosting/Sharing a Meeting**. • If your network/Internet connection is behind a firewall or proxy server, you will have to set up the proxy server. See **Proxy Server Setup**.
Using a cable modem or DSL and unable to share or join a meeting over the EFI meeting server.	Software	• If you are attempting to share a meeting, make sure that you have the eBeam Hardware connected. See **Hosting/Sharing a Meeting**. • If your network/Internet connection is behind a firewall or proxy server, you will have to set up the proxy server. See **Proxy Server Setup**. Even if you think you aren't behind a proxy server/ firewall, you might be. Your ISP might have a firewall set up, causing this problem. Try: • Add a new server (see **Adding a Meeting Server**) with a DNS: meetings.e-beam.com, and port: 443. • This option is only available in version 2.1 and later. Newer versions of the software automatically attempt to connect through port 443, but it may be necessary to manually set up the server as described previously.
Unable to see shared meeting names in the **Join Meeting** dialog box.	Software	• When the meeting host shares the meeting through the **Share Meeting** dialog box (see **Hosting/Sharing a Meeting**), they can select whether or not to publish the meeting name. if the meeting name is published, then it will show up in the **Join Meeting** dialog box. if the meeting name is not published, then other meeting participants must manually type the meeting name into the meeting name text box. • To publish the meeting name, make sure that the **Publish meeting name** check box in the **Share Meeting** dialog box is checked. • Does your intranet have a proxy server/firewall? Most intranets do. If you have not done so, enable your proxy server. See **Proxy Server Setup**.
How to set up the proxy server?	Software	• See **Proxy Server Setup**.

© 3M 2005. All Rights Reserved.

Writing Data/Capture

Problem	eBeam	Try the following:
Software states that the eBeam hardware is detected, but writing does not appear in eBeam Software's Meeting application Active Page.	Hardware	• Press the digital marker down on the whiteboard. If you do not hear a faint buzzing, replace the batteries. • Try another digital marker. If the other digital marker works, replace the batteries in the digital marker sleeve that does not work. • Make sure you are not holding the sleeve too close to the tip of the digital marker. This blocks the signal.
	Software	• Choose **eBeam Hardware > Detect eBeam Hardware** from the eBeam Software's Meeting application **Tools** menu and then check the status line. If it states that the hardware is not detected, see **Manually Detecting the eBeam Hardware**.
Software is missing many of the strokes written with the digital marker.	Hardware	• Press the digital marker down on the whiteboard. If you do not hear a faint buzzing, replace the batteries. • Make sure you are not holding the sleeve too close to the tip of the digital marker. This blocks the signal. • Make sure that you are pressing the digital marker firmly against the 3M Digital WallDisplay when you write. The marker is designed to write with a normal amount of pressure by the writer; however, it is possible to write so softly that the marker does not send out a signal.
Digital marker strokes are shown in eBeam Software's Meeting application in the wrong color.	Hardware	• Make sure you are using the correct color digital marker sleeve. The color of the digital marker sleeve is shown on a color ring located near the tip of the digital marker.
	Software	• Check the color set for the sleeve in the **Sleeve Settings** dialog box (see **Setting Pen Colors/Line Thickness**). It is possible to set a different color in the software for any eBeam digital marker.
Digital marker strokes made at the bottom of the whiteboard do not appear in eBeam Software's Meeting application.	Hardware	• Press the digital marker down firmly on the whiteboard. If you do not hear a faint buzzing noise, replace the bat-teries. • Make sure you are not holding the digital marker too close to the tip. This blocks the signal. • Make sure that you are pressing the marker firmly against the whiteboard when you write. The marker was designed to write with a normal amount of pressure by the writer; however, it is possible to write so softly that the marker does not send out a signal.

© 3M 2005. All Rights Reserved.

Writing Data/Capture

Problem	eBeam	Try the following:
Digital marker strokes made at the bottom of the whiteboard do not appear in eBeam Software's Meeting application.	Software	• Make sure you are writing within the calibrated image area on the whiteboard.
Digital eraser does not erase.	Software	• Press the eraser down on the whiteboard. If you do not hear a faint buzzing noise, replace the batteries. • Choose **eBeam Hardware > Detect eBeam Hardware** from the eBeam Software's Meeting application **Tools** menu and then check the status line.

© 3M 2005. All Rights Reserved.

EFI Meeting Applet

Problem	eBeam	Try the following:
Applet does not load.	Software	**Microsoft® Internet Explorer®** • In Internet Explorer, go to **Tools > Internet Options**. Click the **Security** tab, and then click **Restricted Sites**. Click the **Custom Level** button, and then scroll down the list to **Microsoft VM**. Make sure that **Disable Java** is not selected. Attempt to open the applet again. • In Internet Explorer, go to **Tools > Internet Options**, and click the **Delete Files** button. Attempt to open the applet. **Netscape®** • In Netscape, go to **File** (or **Edit**) **> Preferences**. Click the **Advanced** option, and make sure that **Enable Java** is checked. • In Netscape, go to **File** (or **Edit**) **> Preferences**. Click the **Advanced** option, and then click **Cache** Click both the **Clear Memory Cache** and **Clear Disk Cache** buttons. Attempt to reopen the applet.
While using iVISTA, the applet does not load.	Software	iVISTA and eBeam Software's Meeting application both use port 80 as the default connection port. Try hosting the eBeam meeting over port 81 or some other port value. Try: • From the **Share Meeting** dialog box (see **Hosting/ Sharing a Meeting**), select **Use my PC to host this meeting**, then type **81** in the **Port** text box. • Participants attempting to log in to the meeting should type **http://meeting_name:81**, where meeting_name is the name entered in the **Meeting Name** text box, and 81 is the port value you have entered.
Unable to see shared meeting names in the **Join Meeting** dialog box.	Software	• When the meeting host shares the meeting through the **Share Meeting** dialog box (see **Hosting/Sharing a Meeting**), they can select whether to publish the meet-ing name. If the meeting name is published, it will show up in the **Join Meeting** dialog box. If the meeting name is not published, then other meeting participants must manually type the meeting name into the **Meeting Name** text box. • To publish the meeting name, make sure that the meeting host checked the **Publish Meeting Name** check box in the **Share Meeting** dialog box. • Does your intranet have a proxy server/firewall? Most intranets do. If you have not done so, enable your proxy server. See **Proxy Server Setup**.

© 3M 2005. All Rights Reserved.

Background Images

Problem	eBeam	Try the following:
Microsoft ® Excel® spreadsheet did not load properly.	Software	• Is there a graph in the spreadsheet? eBeam Software's Meeting application cannot import a spreadsheet containing a graph. • See **Loading an Excel Spreadsheet as a Background Image**.
Background image quality is bad.	Software	• Background images that are sent to the applet meeting viewer are highly compressed to make the image faster to download. Using the eBeam Software's Meeting appli-cation is better if you wish for background images to be easy to view.

© 3M 2005. All Rights Reserved.

Service Information

Replacement Parts

Description	Part Number
Power Cord (EU)	78-8131-0004-3
Power Cord (US)	78-8131-0005-0
Power Cord (UK)	78-8131-0003-5
Serial Mouse Cable	26-1015-0423-6
USB Cable	26-1015-0424-4
VGA Cable	26-1015-0425-1
DVI-D Cable	26-1015-0418-6
PC Audio Cable	26-1015-0420-2
S-Video Cable	26-1015-0422-8
Replacement Lamp	78-6969-9736-6
Remote Control Unit	78-8121-0330-3
Macintosh Adapter	26-1015-0419-4
3-Conductor Video/Audio Cable	26-1015-0421-0
Easy Erase Screen	78-6969-9469-4
3M Vikuiti High Brightness Screen	78-6969-9471-0

Optional Accessories

Accessory Tray (right side)	78-6969-9753-1
Accessory Tray (left side)	78-6969-9754-9

Ordering Parts or Getting Information

For product information, product assistance, service information, or to order accessories, please contact 3M Customer Service at the following numbers:

- In U.S. or Canada: **1-800-328-1371**
- In other locations, contact your 3M Sales office.

The contents of this manual are subject to change without prior notice.

3M assumes no responsibility for the infringement of special rights of a third party or other rights that may arise out of the information contained in this manual.

Reproduction of this manual in any form without prior permission is strictly prohibited.

Appendix

3M™ Digital WallDisplay Specifications

Display Size		60" Diagonal viewing area
Display Aspect Ratio		4:3
Display System		Single Chip, DLP™ Texas Instruments technology
DLP Chip	Chip Diagonal Size	0.7 inch
	Number of Pixels	1024 x 768 pixels
Color		24-bit full color
Contrast Ratio		150:1
Dimensions		47.6" H x 53.2" W x 7.0" D (1208 mm x 1350 mm x 179 mm)
Weight		Approx. 85 lbs.
Video Compatibility		NTSC, NTSC 4.43, PAL, PAL-N, PAL-M, SECAM
Computer Video Compatibility		VGA to SXGA
Mouse Emulation		PC serial mouse, ADB and USB
Input/Output Terminal	Computer Input Signals	Analog RGB: 15-pin mini D-Sub
		Digital RGB: DVD-D (digital only)
		Audio: 3.5 mm stereo mini-jack
	Video Input Signals	S-Video: Mini DIN 4-pin
	Audio Out	RCA jacks
	RS-232 Control Port	9-pin D-Sub
	Mouse Emulation Port	9-pin D-Sub
Audio System	Amplifier (to speakers)	20 Watts per channel
	Speakers	40 Watts Max., 8 ohms
Power Requirements		100~240 VAC, 50/60 Hz, 400 Watts Max.

© 3M 2005. All Rights Reserved.

Input/Output Signal Specifications

Computer	Video Signal		Analog 0.7Vp-p, 75 Ohms termination (positive polarity)
	Horizontal Sync Signal		TTL Level (positive/negative polarity)
	Vertical Sync Signal		TTL Level (positive/negative polarity)
	Audio Input Signal		200m Vrms, 20k Ohms (Max 3.0Vp-p)
	Audio Output Signal		0~200m Vrms, 1k Ohms
Video	S-Video	Luminance Signal	1.0Vp-p, 75 Ohms
		Chrominance Signal	0.286Vp-p (color burst), 75 Ohms
	Video Signal		1.0Vp-p, 75 Ohms
	Audio Input Signal		200m Vrms, 20k Ohms

Computer Compatibility

Resolution	Refresh Rate	Horizontal Frequency
640x400	85 Hz	37.9 kHz
	60 Hz	31.5 kHz
	72 Hz	37.9 kHz
	75 Hz	37.5 kHz
	85 Hz	43.3 kHz
800x600	56 Hz	35.1 kHz
	60 Hz	37.9 kHz
	72 Hz	48.1 kHz
	75 Hz	46.9 kHz
	85 Hz	53.7 kHz
1024x768	60 Hz	48.4 kHz
	70 Hz	56.5 kHz
	75 Hz	60.0 kHz
	85 Hz	68.7 kHz
1280x1024	60 Hz	64.0 kHz

© 3M 2005. All Rights Reserved.

Printer Compatibility

Printer Requirements

Printer Control Language: PCL 3, PCL 4, or PCL 5.
Connectivity: Parallel Port

Compatible Printers

Apollo P-2200 Series

Brother HS-5000

Brother HL1440

Brother HL-2700CN

GCC Technologies Elite Color 16N

HP Deskjet 450

HP Deskjet 840c

HP Deskjet 920c

HP Deskjet 940c

HP Deskjet 960c

HP Deskjet 990c

HP Deskjet 3820

HP Deskjet 5550

HP Deskjet 6120

HP Deskjet 6127

HP PSC 5110

HP Photosmart 7150

HP Photosmart 7350

HP Photosmart 7550

HP Photosmart 230

HP LaserJet 3330

HP LaserJet 1300

Lexmark E220 Laser Printer

Lexmark E321 Laser Printer

Lexmark Optra Color 45

Lexmark Optra Color 45N

OKI 5300n

OKI C7300

OKI C7300n

OKI C7300dxn

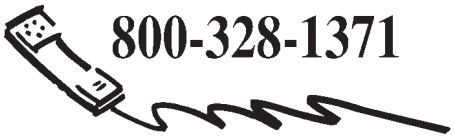
OKI C7500n

OKI C7500dxn

© 3M 2005. All Rights Reserved.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly set forth in a written agreement signed by an authorized officer of 3M.



800-328-1371

http://www.3M.com/walldisplay
e-mail: meetings@mmm.com

3M Austin Center
Building A145-5N-01
6801 River Place Blvd.
Austin, TX 78726-9000

3M Canada
P.O. Box 5757
London, Ontario
N6A 4T1

3M Mexico, S.A. de C.V.
Apartado Postal 14-139
Mexico, D.F. 07000
Mexico

3M Europe
Boulevard de l'Oise
95006 Cerge Pontoise Cedex
France

Litho in USA

Copyright © 2005 3M
All Rights Reserved

78-6970-9381-9 Rev. B